

# Postgraduate Diploma

Obstetric Ultrasound of 1st,  
2nd and 3rd Trimester





## Postgraduate Diploma Obstetric Ultrasound of 1st, 2nd and 3rd Trimester

- » Modality: online
- » Duration: 6 months
- » Certificate: TECH Global University
- » Credits: 18 ECTS
- » Schedule: at your own pace
- » Exams: online

Website: [www.techtute.com/us/medicine/postgraduate-diploma/postgraduate-diploma-obstetric-ultrasound-1st-2nd-3rd-trimester](http://www.techtute.com/us/medicine/postgraduate-diploma/postgraduate-diploma-obstetric-ultrasound-1st-2nd-3rd-trimester)

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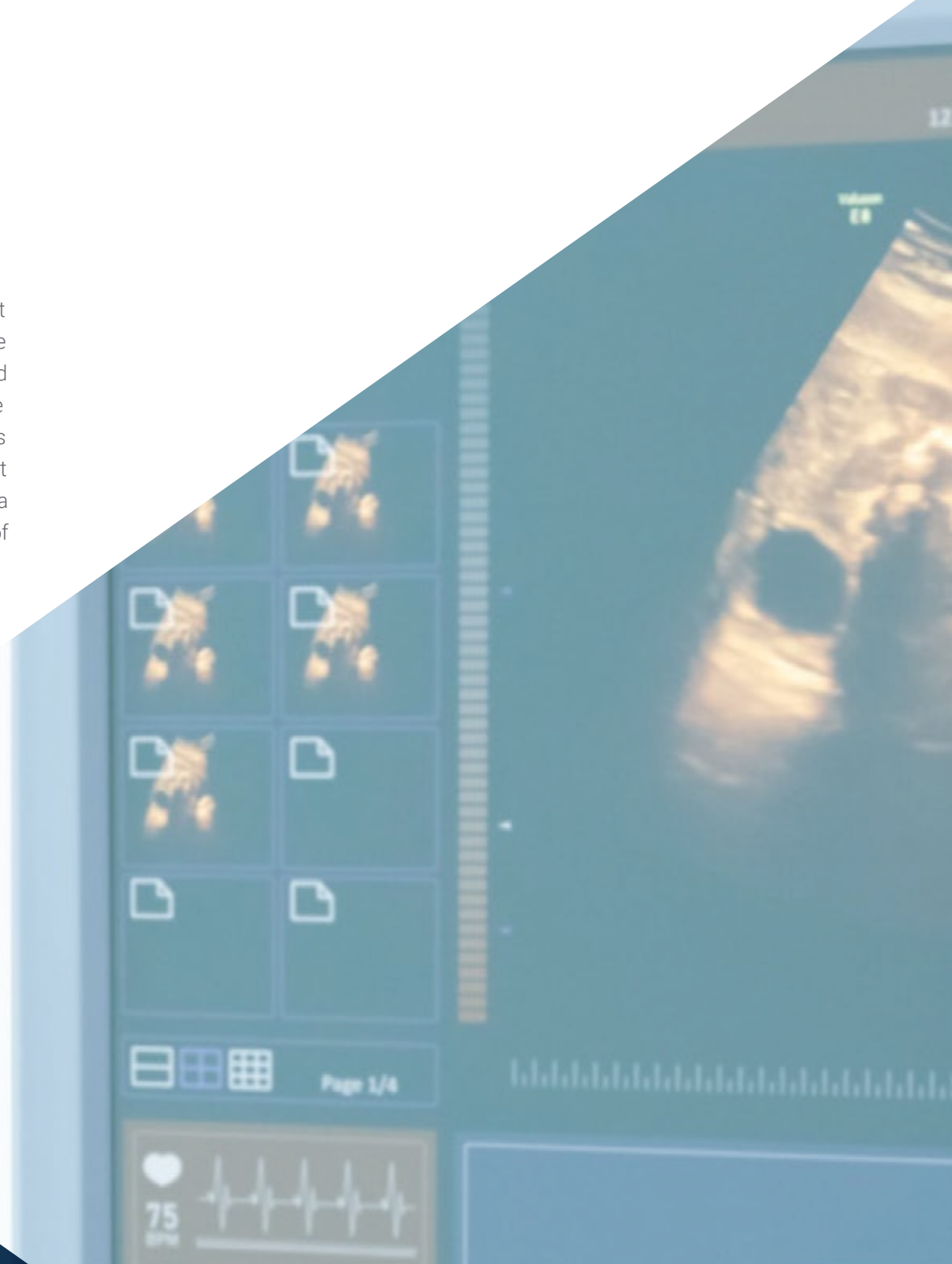
Certificate

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# 01 Introduction

Such is the extent of pathologies, malformations or abnormalities that the specialist can detect during pregnancy, which usually makes a notorious distinction in the three trimesters that lasts gestation. The approach and working methodology to be employed must be flexible, adapting at all times to the patient's own situation and the possible complications that can be diagnosed. This academic qualification is postulated as a preferred option to be updated in this field, providing the specialists with the latest developments in issues such as hemodynamia and fetal deterioration, placenta ácreta or preeclampsia screening, among others. All this in a completely online format free of face-to-face classes and pre-set schedules.





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*Update with the latest news in the management of complications such as fetal macrosomia, genitourinary malformations and trophoblastic disease”*

The demand on obstetric professionals is increasing, since the advances produced in the area of image acquisition and interpretation are clearly noticeable. These developments allow an early detection of many pathologies, being able to classify them even in the different periods of pregnancy, which affects the need for a much more improved and updated action by the specialist.

Being the second trimester one of the most complex at the level of analysis and interpretation of results, the possible complications arising both at the beginning and at the end of gestation should not be ignored. Hence the importance of obtaining a complete and comprehensive update in this area, which is why TECH has created the present program.

In this Postgraduate Diploma, the specialists will review the ultrasound techniques, test analysis and main complications that can arise throughout the pregnancy. From the protocols of action before pregnancies of uncertain location to spinal malformations or alterations of the amniotic fluid, the graduate will have a rigorous and current vision of the obstetric ultrasound of the 1st, 2nd and 3rd trimester of pregnancy.

The format of the program is also 100% online, which implies that neither face-to-face classes nor pre-set schedules should be followed. It is the students who have total freedom to assume the teaching load according to their own pace, adapting it to their needs at all times. To do this, all content available on the Virtual Campus can be downloaded from any device with an Internet connection.

This **Postgraduate Diploma in Obstetric Ultrasound of 1st, 2nd and 3rd Trimester** 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, Ultrasound and Gynecology
- ♦ 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



*Update study protocols for the first, second and third trimester of pregnancy with the best experts in the field"*



*Download all the content of the Virtual Campus and consult it when you want from the comfort of your Tablet, Smartphone or computer of preference"*

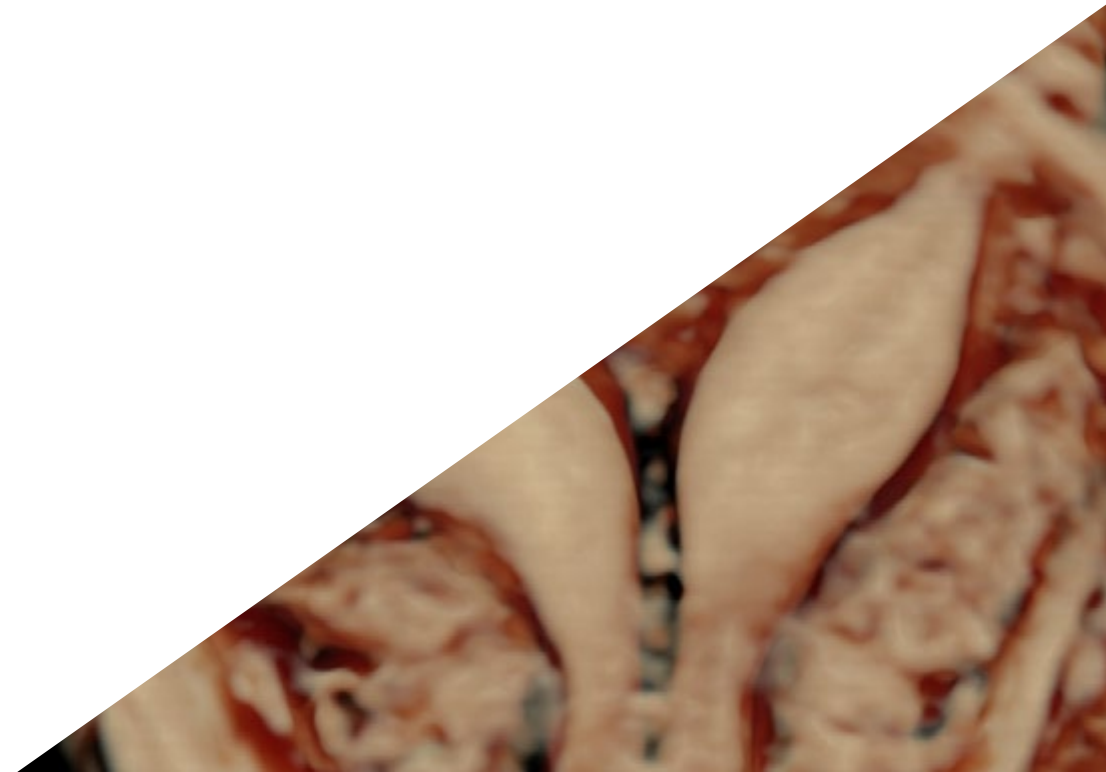
The program's teaching staff includes professionals from sector who contribute their work experience to this educational program, as well as renowned specialists from leading societies and prestigious universities.

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.

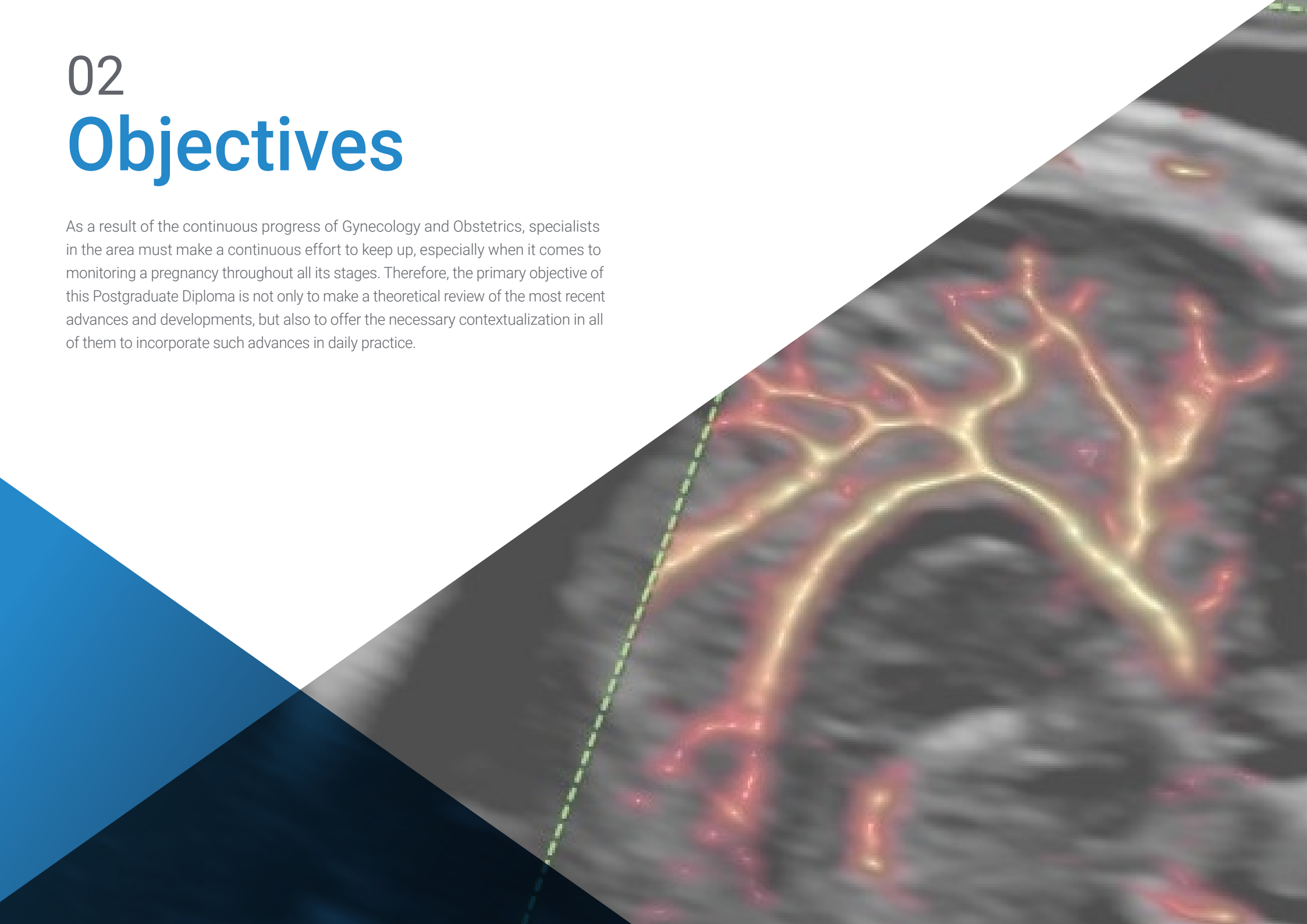
*Examine appropriate invasive techniques in the first trimester, including amniocentesis and chorion biopsy.*

*Delve into pathologies and complications such as renal agenesis, umbilical hernia and placental tumors.*



# 02 Objectives

As a result of the continuous progress of Gynecology and Obstetrics, specialists in the area must make a continuous effort to keep up, especially when it comes to monitoring a pregnancy throughout all its stages. Therefore, the primary objective of this Postgraduate Diploma is not only to make a theoretical review of the most recent advances and developments, but also to offer the necessary contextualization in all of them to incorporate such advances in daily practice.







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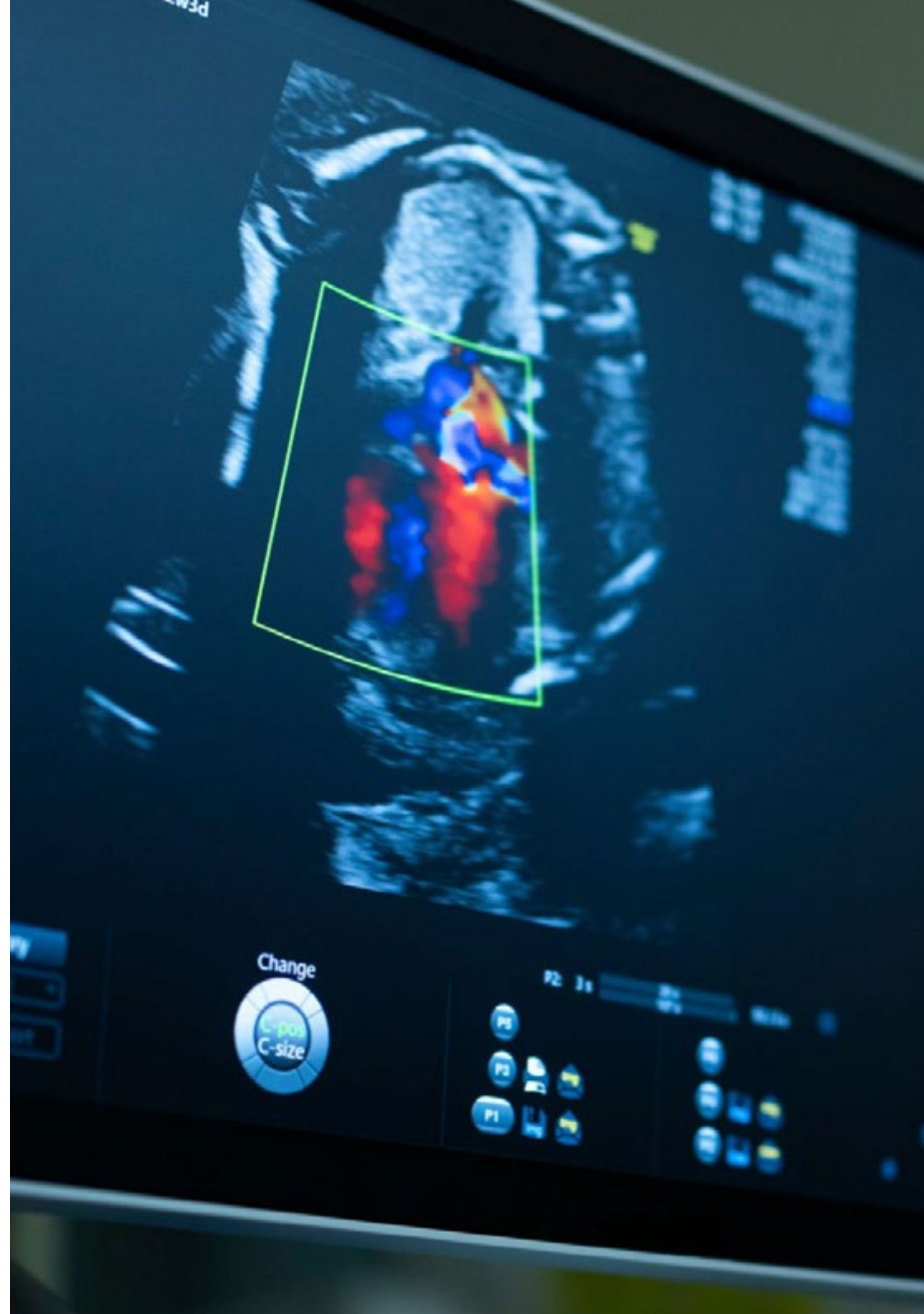
*Incorporate into your daily practice, even before the end of the program, the most advanced diagnostic techniques of obstetric ultrasound”*



## 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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### Module 1. First Trimester Ultrasound

- ♦ Understand the normal ultrasound study of the first trimester ultrasound
- ♦ Study ultrasound of uncertain location and its management, as well as the usefulness of ultrasound study in the management of early gestation
- ♦ Understand the main first trimester ultrasound markers, both of aneuploidy and of other pathologies
- ♦ Learn the main malformations that can be diagnosed in the first trimester
- ♦ Have an in-depth knowledge of aneuploidy screening and first trimester preeclampsia screening
- ♦ Understand the use of fetal DNA in maternal blood, as well as the basic principles of genetics in obstetrics

### Module 2. Second Trimester Ultrasound

- ♦ Learn in depth the second trimester ultrasound study protocol, its basic sections and normality
- ♦ Study the spectrum of placenta accreta and the keys to an accurate ultrasound diagnosis
- ♦ Learn about cervical assessment by ultrasound and the risk of preterm labor in the second trimester
- ♦ Identify ultrasound markers of second trimester aneuploidy
- ♦ Understand the main malformations that can be diagnosed in the second trimester by apparatus and systems
- ♦ Study the main ultrasound features of fetal hydrops and its management

### Module 3. Third Trimester Ultrasound

- ♦ 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



*Adapt your work methodology and organization following the clinical practice of the most efficient obstetric and gynecological teams"*

03

# Course Management

Providing a distinctive practical vision to all contents, the teaching staff of this Postgraduate Diploma has been selected for its broad clinical and academic merits. This way, the specialists ensure access to the most rigorous scientific and technical contents, based on the own practical experience of reputed obstetricians and gynecologists.



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*The best experts in Obstetric Ultrasound will give you the scientific and practical keys of this diagnostic technique in the different stages of pregnancy"*

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

## Professors

### Dr. López-Quesada, Eva

- ♦ Coordinator of the Obstetrics and Gynecology Service at the MútuaTerrassa University Hospital
- ♦ 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 the Clinical Committee for the Quality Control of First Trimester Ultrasonography of Catalonia, Catalan Society of Obstetrics and Gynecology (SCOG), Spanish Society of Gynecology and Obstetrics (SEGO)

### Dr. Urquizu, Xavier

- ♦ Specialist of the Obstetrics and Gynecology Service at the MútuaTerrassa University Hospital
- ♦ Specialist in Maternal-Fetal Medicine
- ♦ PhD from the University of Barcelona
- ♦ Member of Catalan Society of Obstetrics and Gynecology (SCOG) Catalan Society Spanish Society of Gynecology and Obstetrics (SEGO)



**Dr. Codina, Laura**

- ◆ Specialist of the Obstetrics and Gynecology Service at the MútuaTerrassa University Hospital
- ◆ Specialist in Prenatal Diagnosis and Maternal-Fetal La Medicine
- ◆ Member of Catalan Society of Obstetrics and Gynecology (SCOG) Catalan Society Spanish Society of Gynecology and Obstetrics (SEGO)

**Dr. Cabello, Eloy**

- ◆ Specialist in the Obstetrics and Gynecology Department of the Hospital Mútua Terrassa
- ◆ Specialist of the Obstetrics and Gynecology Service at the MútuaTerrassa University Hospital
- ◆ Specialist in Prenatal Diagnosis and Maternal-Fetal Medicine
- ◆ Member of Catalan Society of Obstetrics and Gynecology (SCOG) Catalan Society Spanish Society of Gynecology and Obstetrics (SEGO)

**Dr. Trilla, Cristina**

- ◆ Specialist in Prenatal Diagnosis at the Santa Creu i Sant Pau Hospital
- ◆ Fertility Specialist at Clínica Fertty. Barcelona
- ◆ PhD in Medicine, Autonomous University of Barcelona
- ◆ Member of the Maternal-Fetal Medicine Section of the Catalan Society of Obstetrics and Gynecology (SCOG), International Society of Ultrasound in Obstetrics & Gynecology (ISUOG)

#### **Dr. Sánchez, María Ángeles**

- ♦ Head of the Prenatal Diagnosis Unit of the Obstetrics Service of the Vall d'Hebron Hospital
- ♦ Head of the Prenatal Diagnostic Unit of the Obstetrics Service at the Vall d'Hebron University Hospital
- ♦ Specialist of the Obstetrics Service at the Vall d'Hebron University Hospital
- ♦ Specialist in Prenatal Diagnosis and Maternal-Fetal Medicine
- ♦ PhD of Medicine from the University of Barcelona
- ♦ Member of Catalan Society of Obstetrics and Gynecology (SCOG) Catalan Society 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. 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

#### **Dr. Higuera, Teresa**

- ♦ Head of the Obstetric Ultrasound Unit of the Obstetrics Department at Vall d'Hebron University Hospital
- ♦ Specialist of the Obstetrics Service at the Vall d'Hebron University Hospital
- ♦ PhD from the University of Zaragoza
- ♦ Practical stay in Fetal Medicine at the King's College Hospital. London
- ♦ Associate Professor at Autonomous University of Barcelona
- ♦ Member of the Spanish Society of Gynecology and Obstetrics (SEGO)

#### **Dr. Maiz, Nerea**

- ♦ Research Coordinator of the Obstetrics Service of Vall d'Hebron Hospital
- ♦ 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
- ♦ PhD of Medicine from the University of Barcelona
- ♦ Professional Master's Degree in Research Methodology in Health Sciences, Autonomous University of Barcelona
- ♦ Member of the Spanish Society of Gynecology and Obstetrics (SEGO)

#### **Dr. Arévalo, Silvia**

- ♦ Head of the Obstetrics Department at Vall d'Hebron University Hospital
- ♦ Specialist in Prenatal Diagnosis and Fetal Medicine and Maternal-Fetal Echocardiography
- ♦ Member of Catalan Society of Obstetrics and Gynecology (SCOG) Catalan Society Spanish Society of Gynecology and Obstetrics (SEGO)



**Dr. Rodó, Carlota**

- ♦ Attending Physician of the Obstetrics Service at the Vall d'Hebron University Hospital
- ♦ Specialist in Prenatal Diagnosis and Fetal Medicine and Maternal-Fetal neurosonography
- ♦ PhD from the Autonomous University of Barcelona
- ♦ Member of the Spanish Association of Prenatal Diagnosis (AEDP) and of the Ultrasound Section of the Catalan Society of Obstetrics and Gynecology (SCOG)
- ♦ Member of the Spanish Society of Gynecology and Obstetrics (SEGO)

**Dr. Maroto, Anna**

- ♦ Chief of Gynecology and Obstetrics Service at the University Hospital Doctor Josep Trueta
- ♦ Specialist in Fetal Medicine
- ♦ Associate Professor at University of Girona
- ♦ Member of the Ultrasound and Fetal Medicine Section of the Catalan Society of Obstetrics and Gynecology (SCOG)
- ♦ PhD from the Autonomous University of Barcelona

**Dr. Aquise, Adriana**

- ♦ Specialist of the Gynecology and Obstetrics Service at the of Torrejón University Hospital
- ♦ 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), Ultrasound Section of the Spanish Society of Gynecology and Obstetrics (SESEGO)

**Dr. Fidalgo Conde, Ana María**

- ♦ Specialist of the Gynecology and Obstetrics Service at the of Torrejón University Hospital
- ♦ 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), Ultrasound Section of the Spanish Society of Gynecology and Obstetrics (SESEGO)

**Dr. Martínez, Clara**

- ♦ Chief of Gynecology and Obstetrics Service at the University Hospital Doctor Josep Trueta
- ♦ Specialist in Prenatal Diagnosis
- ♦ Member of Spanish Obstetric Safety Group



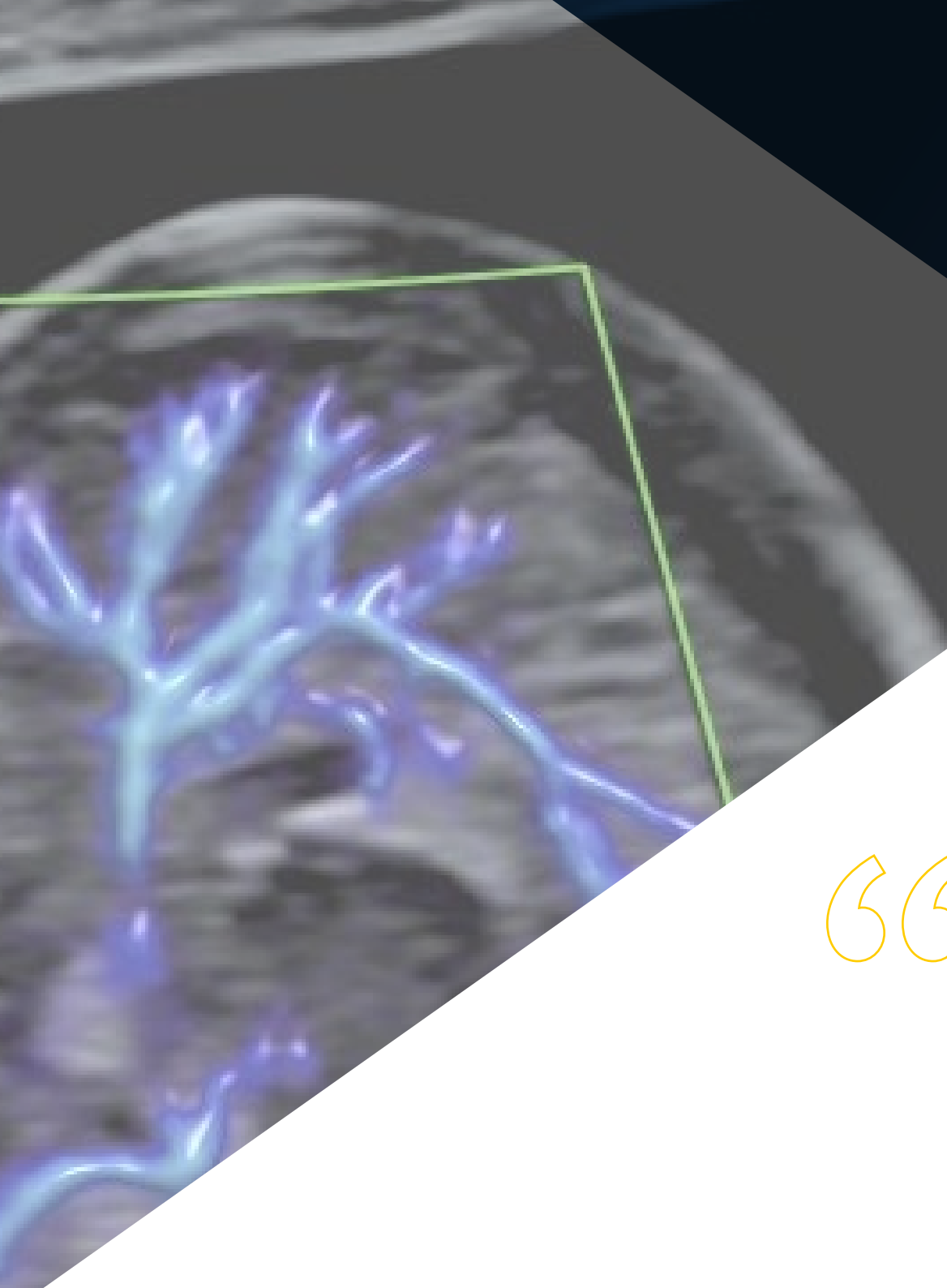
*A unique, key, and decisive educational experience to boost your professional development”*

# 04

## Structure and Content

All the content available in this Postgraduate Diploma has been elaborated following the bases of the pedagogical methodology of Relearning. In this way, the specialist accesses the key concepts in the Obstetric Ultrasound of 1st, 2nd and 3rd Trimester gradually and naturally, resulting in a much more complete and satisfactory academic experience. In turn, the great support in multimedia resources makes it a much more efficient update, without having to invest excessive hours of study in it.





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*You will have access to a library rich in high quality multimedia resources developed by the teachers themselves”*

## Module 1. First Trimester Ultrasound

- 1.1. Protocol for the study of first trimester ultrasound, normalcy
  - 1.1.1. Gestational age and dating
  - 1.1.2. Anatomic examination
  - 1.1.3. Measurement of markers of aneuploidy
  - 1.1.4. Placenta, uterus and adnexa
- 1.2. Uncertain Location Pregnancy
  - 1.2.1. Differential Diagnosis
  - 1.2.2. Blood Biochemistry
  - 1.2.3. Action Protocol
- 1.3. Early gestation (trophoblastic disease, amnios, vesicles, etc.)
  - 1.3.1. Gestational sac
  - 1.3.2. Yolk vesicle
  - 1.3.3. Amniotic and chorionic cavity
  - 1.3.4. Embryo
  - 1.3.5. Early embryonic development
  - 1.3.6. Early pathology
  - 1.3.7. Findings of poor gestational prognosis
- 1.4. Ultrasound markers of first trimester chromosomopathy
  - 1.4.1. Introduction
  - 1.4.2. Nuchal translucency
  - 1.4.3. Nasal bone
  - 1.4.4. Venous ductus
  - 1.4.5. Tricuspid Regurgitation
- 1.5. Other first trimester ultrasound markers (angulopathy, trans - intracranial, uterine, etc.)
  - 1.5.1. Intracranial translucency
  - 1.5.2. Frontomaxillary angle
  - 1.5.3. Retronasal triangle



- 1.5.4. Uterine arteries
- 1.6. Diagnosable morphologic pathology in the first trimester
  - 1.6.1. Cranial and central nervous system pathology
  - 1.6.2. Face
  - 1.6.3. Skeletal System
  - 1.6.4. Thorax and neck
  - 1.6.5. Heart
  - 1.6.6. Abdomen
  - 1.6.7. Urinary System
- 1.7. First trimester aneuploidy screening
  - 1.7.1. History of aneuploidy screening
  - 1.7.2. Blood Biochemistry
  - 1.7.3. Ultrasound markers
  - 1.7.4. Study Protocol
- 1.8. Fetal DNA in maternal blood (also in twins)
  - 1.8.1. History of fetal DNA
  - 1.8.2. Methods of Analysis
  - 1.8.3. Practical Aspects
  - 1.8.4. Fetal fraction and absence of result
  - 1.8.5. Fetal DNA in twins
  - 1.8.6. Microdeletions
  - 1.8.7. Interpretation of results and protocol
- 1.9. First trimester preeclampsia screening
  - 1.9.1. History of preeclampsia screening
  - 1.9.2. Types of screening
  - 1.9.3. Components of screening
  - 1.9.4. Available calculators
  - 1.9.5. Cut-off points and prevention
  - 1.9.6. Follow-up in high risk of preeclampsia

- 1.10. Invasive Techniques
  - 1.10.1. Amniocentesis
  - 1.10.2. Chorion Biopsy
  - 1.10.3. Multiple Gestation
- 1.11. Basic genetics in Obstetrics
  - 1.11.1. Genetic Concepts
  - 1.11.2. Mendelian Genetics
  - 1.11.3. Non-Mendelian genetics
  - 1.11.4. Prenatal genetic testing

## Module 2. Second Trimester Ultrasound

- 2.1. Protocol for the study of second trimester ultrasound, normality
  - 2.1.1. Gestational age and second trimester dating
  - 2.1.2. Skull and central nervous system
  - 2.1.3. Limbs and spine
  - 2.1.4. Thorax and heart
  - 2.1.5. Abdomen
  - 2.1.6. Genitourinary system
- 2.2. Assessment of the placenta and umbilical cord
  - 2.2.1. Abnormalities of placental shape, location and insertion
  - 2.2.2. Placental tumors
  - 2.2.3. Vascular anomalies and hematomas
  - 2.2.4. Abnormalities of the cord
- 2.3. Spectrum of placenta accreta
  - 2.3.1. Classification
  - 2.3.2. Ultrasound Diagnosis
  - 2.3.3. Magnetic Resonance
  - 2.3.4. Management

- 2.4. Cervical assessment. Risk of Premature Delivery
  - 2.4.1. Measurement Techniques
  - 2.4.2. Risk of Premature Delivery
  - 2.4.3. Recommendations of scientific societies
- 2.5. Ultrasound markers of second trimester chromosomopathy
  - 2.5.1. History of second trimester markers
  - 2.5.2. Likelihood ratio
  - 2.5.3. Ultrasound markers
  - 2.5.4. Management
- 2.6. Malformations of the abdomen and abdominal wall
  - 2.6.1. Umbilical Hernia
  - 2.6.2. Omphalocele
  - 2.6.3. Gastroschisis
  - 2.6.4. Bladder exstrophy
  - 2.6.5. Other abdominal wall anomalies
  - 2.6.6. Abdominal cysts
  - 2.6.7. Gastrointestinal Pathology
- 2.7. Malformations of the face, neck and thorax
  - 2.7.1. Facial malformations
  - 2.7.2. Malformations of the neck
  - 2.7.3. Thoracic Malformations
- 2.8. Spinal malformations
  - 2.8.1. Hemivertebra
  - 2.8.2. Neural Tube Defects
  - 2.8.3. Sacrococcygeal Teratomas
  - 2.8.4. Flow regression sequence
- 2.9. Limb malformations
  - 2.9.1. Skeletal Dysplasias
  - 2.9.2. Clubfoot
  - 2.9.3. Reductional alterations
  - 2.9.4. Arthrogryposis

- 2.10. Genitourinary malformations
  - 2.10.1. Renal agenesis
  - 2.10.2. Obstructive Pathology
  - 2.10.3. Renal ectopias
  - 2.10.4. Multicystic and polycystic kidney
  - 2.10.5. Other renal anomalies
  - 2.10.6. Adrenal abnormalities
  - 2.10.7. Bladder anomalies
  - 2.10.8. Genital abnormalities
- 2.11. Fetal *Hidrops*
  - 2.11.1. Definition
  - 2.11.2. Ultrasound abnormalities
  - 2.11.3. Etiology
  - 2.11.4. Management
  - 2.11.5. Prognosis
  - 2.11.6. Associated Complications
  - 2.11.7. Recurrence

### Module 3. Third Trimester Ultrasound

- 3.1. Protocol for the study of third trimester ultrasound, normality
  - 3.1.1. Gestational age and third trimester dating
  - 3.1.2. Objectives of third trimester ultrasound
  - 3.1.3. Ultrasound system
- 3.2. Malformative pathology of diagnosis in third trimester
  - 3.2.1. Introduction
  - 3.2.2. Most frequent malformations
- 3.3. Estimation of fetal growth
  - 3.3.1. Definitions
  - 3.3.2. Estimation of fetal weight. Bio-Meters
  - 3.3.3. Normality curves and percentiles



- 3.4. Doppler study in third trimester ultrasound
  - 3.4.1. Umbilical Artery
  - 3.4.2. Middle Brain Artery
  - 3.4.3. Venous ductus
  - 3.4.4. Uterine arteries
  - 3.4.5. Others
- 3.5. Growth disturbances (PEG and CIR)
  - 3.5.1. Introduction
  - 3.5.2. Small for gestational age fetus
  - 3.5.3. Intrauterine growth retardation
- 3.6. Hemodynamics and fetal impairment in intrauterine growth retardation
  - 3.6.1. Fetal hemodynamics
  - 3.6.2. Biophysical Profile
  - 3.6.3. Fetal Monitoring
- 3.7. Fetal Macrosomia
  - 3.7.1. Introduction
  - 3.7.2. Risk Factors
  - 3.7.3. Diagnosis
  - 3.7.4. Complications
  - 3.7.5. Management
- 3.8. Intrapartum ultrasound
  - 3.8.1. Technique
  - 3.8.2. Station evaluation
  - 3.8.3. Head attitude evaluation
  - 3.8.4. Indications
- 3.9. Abnormalities of amniotic fluid
  - 3.9.1. Introduction
  - 3.9.2. Oligohydramnios
  - 3.9.3. Polyhydramnios
  - 3.9.4. Management

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.





“

*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.

“

*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 Diploma in Obstetric Ultrasound of 1st, 2nd and 3rd Trimester guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Diploma 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 Diploma in Obstetric Ultrasound of 1st, 2nd and 3rd Trimester** 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 Diploma in Obstetric Ultrasound of 1st, 2nd and 3rd Trimester**

Modality: **online**

Duration: **6 months**

Accreditation: **18 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.



**Postgraduate Diploma**  
Obstetric Ultrasound of  
1st, 2nd and 3rd Trimester

- » Modality: online
- » Duration: 6 months
- » Certificate: TECH Global University
- » Credits: 18 ECTS
- » Schedule: at your own pace
- » Exams: online

# Postgraduate Diploma

Obstetric Ultrasound of 1st,  
2nd and 3rd Trimester