

# Postgraduate Certificate Obstetric-Gynecologic Anesthesia





## Postgraduate Certificate Obstetric-GynecologicAnesthesia

- » Modality: online
- » Duration: 2 months
- » Certificate: TECH Technological University
- » Dedication: 16h/week
- » Schedule: at your own pace
- » Exams: online

Website: [www.techtute.com/in/medicine/postgraduate-certificate/postgraduate-certificate-obstetric-gynecologic-anesthesia](http://www.techtute.com/in/medicine/postgraduate-certificate/postgraduate-certificate-obstetric-gynecologic-anesthesia)

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# 01

# Introduction

Anesthesia techniques in women have undergone significant development in recent years. Pharmacological and advances, intraoperative and postoperative monitoring, imaging techniques and new multimodal handling paradigms, as well as who are by specific fields, have contributed decisively to this transformation, and contribute toward reducing gynecologic surgery patient morbidity and mortality.

*Keeping up to date on Obstetric-Gynecologic Anesthesia procedures is key to providing better patient care.*



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*New scenarios in anesthesia procedures for women motivate us to propose new training programs that fit the real needs of experienced professionals, so that they can incorporate advances in the management of obstetric-gynecologic anesthesia into their medical practice”*



The progressive increase of biomedical knowledge, the constant introduction of new technologies and the change in the conception of health, impose a constant evolution in the teaching of the different medical specialties, which must be addressed by professionals with a permanent attitude of continuous training that favors the maintenance of their skills throughout their future professional lives.

The fetus-maternal binomial imposes special conditions unique in our environment, to the extent that any therapeutic action has a greater dimension than that of women themselves. It is therefore necessary to update, based on solid science, the pathophysiological foundations of the maternal-fetal interaction, so that our therapeutic procedures are carried out with maximum safety for all.

This Postgraduate Certificate deals in depth with anesthesia procedures for both pregnant and postpartum women, with emphasis on the therapeutic adaptations required in each case and their new anesthetic needs.

This **Postgraduate Certificate in Obstetric-Gynecologic Anesthesia** is the most complete and up-to-date scientific program on the market. The most important features of the program include:

- ♦ Clinical cases presented by specialists in anesthesiology and other areas. The graphic, schematic, and eminently practical contents with which they are created provide scientific and practical information on the disciplines that are essential for professional practice.
- ♦ Real high-resolution images of pathologies, diagnostic imaging tests and guided procedures.
- ♦ Practical workshops on anesthesia procedures and techniques for women suffering from surgical pathologies.
- ♦ Algorithm-based interactive learning system for decision-making in the presented clinical situations.
- ♦ All this will be complemented by 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.



*You will be able to learn, through the latest educational technology, the most recent advances in obstetric-gynecologic anesthesia”*

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*This Postgraduate Certificate may be the best investment you can make when choosing a refresher program for two reasons: in addition to updating your knowledge of Obstetric-Gynecologic Anesthesiology, you will obtain a qualification from TECH Technological University”*

The teaching staff is made up of a team of leading anesthesiologists, who bring to this training the experience of their work, in addition to recognized specialists in other medical areas.

The multimedia content developed with the latest educational technology will provide the physician with situated and contextual learning, i.e., a simulated environment that will provide immersive training programmed to train in real situations.

Problem-Based Learning underpins this program design, and the specialists must use it to try and solve the different professional practice situations that arise throughout the course. For this reason, you will be assisted by an innovative, interactive video system created by renowned and experienced experts in the field of psychology with extensive teaching experience.

*Incorporate the latest developments in obstetric-gynecologic anesthesia to your medical practice and improve patient prognosis.*

*It includes real clinical cases to bring medical practice as close as possible to the development of the program.*



# 02

# Objectives

The main objective is to facilitate the incorporation of advances in obstetric and gynecologic anesthesia, so that specialists can update their knowledge in a practical way, using the latest educational technology and adapting the educational process to their real needs.







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*This refresher program will provide you with the skills to act safely in decision making during procedures in obstetric-gynecologic anesthesiology, and will help you grow professionally”*



## General Objective

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- ♦ Update specialist physicians on the procedures and techniques performed in obstetric-gynecologic anesthesia, incorporating the latest advances to increase the quality of their daily medical practice and improve patient prognosis.



## Specific Objectives

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- ♦ Update the indications and contraindications of neuroaxial analgesia in pregnant women.
- ♦ Update the new maintenance modalities for neuroaxial analgesia during pregnancy.
- ♦ Differentiate the Procedure of Working and Walking epidural.
- ♦ Describe the complications associated with neuroaxial techniques in labor.
- ♦ Update the usefulness of opioid drugs in labor pain relief.
- ♦ Incorporate Remifentanil as a new opioid paradigm in labor.
- ♦ Review the PCA Modalities for remifentanil for the effective control of labor.
- ♦ Update the obstetrical-surgical factors that determine cesarean section: indications, timing and complications.
- ♦ Identify the common anesthetic factors for cesarean section.
- ♦ Update on the neuroaxial techniques in cesarean section.
- ♦ Update on the general anesthesia procedure, still in force.
- ♦ Review post cesarean analgesia techniques and new regional techniques.
- ♦ Describe the specific airway problems in pregnant women.
- ♦ Update on the protocols for VAD approach in pregnant women.
- ♦ Discover the new technology for VAD approach.
- ♦ Update on the evidence for the advantages of hemodynamic monitoring.
- ♦ Update on GDT in obstetrics.
- ♦ Incorporate targeted prescription of vasoconstrictors.
- ♦ Describe the specific characteristics of resuscitation in pregnant women.
- ♦ Rate coordination efforts between the obstetric-anesthetic team.
- ♦ Determine the timing for cesarean section and perimortem cesarean section.
- ♦ Update on CPR procedures for AL poisoning.
- ♦ Update on anesthesia procedures for fetoscopy and ex utero intrapartum treatments (EXIT).
- ♦ Update on tocolysis procedures for EXIT procedures.
- ♦ Incorporate the new definitions of pre-eclampsia: practical implications.
- ♦ Incorporate anesthetic and postoperative hypertensive pathology management in pregnancy.
- ♦ Incorporate the new paradigms for specific obstetric hemorrhage management.
- ♦ Update procedures from coagulation monitoring: thromboelastrometry.
- ♦ Update the treatment for severe obstetric hemorrhage: hemocompounds versus factor concentrates.
- ♦ Explain considerations for the treatment of peripartum cardiomyopathy.
- ♦ Establish the association between hypertensive disorders in pregnancy and cardiomyopathy risk.
- ♦ Describe obstructive hypertrophic cardiomyopathy in pregnant patients.
- ♦ Describe the main characteristics of valvulopathies in pregnant women.

- ♦ Incorporate new considerations in the etiology of amniotic fluid embolism (ALTE).
- ♦ Describe the incidence and risk factors for ALS.
- ♦ Establish a multidisciplinary approach to ALS treatment.
- ♦ Update on the medical procedures for sepsis identification and management in pregnant women.
- ♦ Analyze the optimization of fetal well-being during maternal sepsis treatment.
- ♦ Describe postoperative sepsis, which is similar but not the same.
- ♦ Review the physiology associated with gestational age.
- ♦ Analyze the laparotomy/laparoscopy controversy.
- ♦ Update on laparoscopic surgery techniques in pregnant women and determine when it is safe.
- ♦ Describe the systemic effects of cancer and cancer metastasis in patients.
- ♦ Describe the interactions between antineoplastic and anesthetic drugs.
- ♦ Update on anesthesia procedures in gynecological cytoreductive surgery.
- ♦ Incorporate ERAS (Enhanced Recovery after Surgery) in Gynecologic Oncologic Surgery.
- ♦ Incorporate the new anesthetic requirements for breast oncoplastic surgery.
- ♦ Update on procedures in locoregional analgesia and intravenous analgesia.
- ♦ Update on ultrasound-guided chest wall blocks in breast surgery as a new standard.

*Seize the opportunity and take the step to get up-to-date on the latest developments in obstetric-gynecologic anesthesia”*



# 03

# Course Management

The materials have been created by a team of leading professionals in the field of obstetric-gynecologic anesthesia, who work in prestigious hospitals. Additionally, other recognized specialists participate in its design and preparation, which means that the program is developed in an interdisciplinary manner.



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*Learn about the latest advances in  
obstetric-gynecologic anesthesia  
from leading professionals”*



## Management



### Dr. Muedra Navarro, Vicente

- Head of the Anesthesia Service at the General University Hospital Consortium of Valencia.
- Professor-Doctor of Anesthesiology at the Universitat de Valencia
- Degree in Medicine from the University of Valencia
- MIR Specialist in Anesthesiology, Resuscitation and Pain Therapeutics at La Fe University Hospital in Valencia
- PhD in Medicine and Surgery from the University of Valencia
- Professor of the Department of Biomedical Sciences. Faculty of Medicine. CEU Cardenal Herrera University. Valencia
- Director of doctoral theses and Master's Degree theses
- Member of several Health Care Improvement Commissions at La Ribera University Hospital
- University Expert in the Comprehensive Management of the Airway, by the Catholic University of Valencia
- Vice-president of the Department of Anesthesiology and Critical Care in Cardiac Surgery of the Valencian Community
- Member of the Spanish Society of Anesthesiology, Resuscitation and Pain Therapy
- Member of the Spanish Society of Multimodal Rehabilitation
- Head researcher in several research projects with competitive funding from Public Institutions (Carlos III Health Institute)
- Collaborating Researcher in the Prometeo Program for research groups of Excellence in the Department of Education and Science at Generalitat Valenciana.
- Research member of the Translational Medicine Doctoral Program in the research line Multidisciplinary Intervention in Prevention and Clinical Therapeutics of International Doctoral School CEINDO

## Coordinator

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- ◆ Doctor Specialist in Anesthesiology, Resuscitation and Pain Therapy
- ◆ Attending Physician
- ◆ Marqués de Valdecilla University Hospital Santander, Spain

## Professors

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- ◆ Degree in Medicine and Surgery
- ◆ Doctor Specialist in Anesthesiology, Resuscitation and Pain Therapy
- ◆ Attending Physician
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### Dr. Borrás Ramírez, Rosa

- ◆ Degree in Medicine and Surgery
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- ◆ Quirón Hospital Barcelona, Spain

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- ◆ Degree in Medicine and Surgery
- ◆ Doctor Specialist in Anesthesiology, Resuscitation and Pain Therapy
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### Dr. Fonet Ruiz, Inocencia

- ◆ Degree in Medicine and Surgery
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- ◆ Puerta de Hierro University Hospital. Madrid, Spain

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- ◆ Degree in Medicine and Surgery
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**Dr. Mayorga Buiza, María José**

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- ◆ Doctor Specialist in Anesthesiology, Resuscitation and Pain Therapy
- ◆ Attending Physician
- ◆ Infanta Elena Hospital. Madrid, Spain

**Dr. Ortiz Gómez, José Ramón**

- ◆ Degree in Medicine and Surgery
- ◆ Doctor Specialist in Anesthesiology, Resuscitation and Pain Therapy
- ◆ Attending Physician
- ◆ Navarra Hospital Complex. Pamplona, Spain





**Dr. Pascual Ramírez, Julián**

- ◆ Degree in Medicine and Surgery
- ◆ Doctor Specialist in Anesthesiology, Resuscitation and Pain Therapy
- ◆ Attending Physician
- ◆ General University Hospital Ciudad Real, Spain

**Dr. Plaza Moral, Ana**

- ◆ Degree in Medicine and Surgery
- ◆ Doctor Specialist in Anesthesiology, Resuscitation and Pain Therapy
- ◆ Attending Physician
- ◆ Barcelona Clinical Hospital. Barcelona, Spain



# 04

# Structure and Content

The syllabus structure has been designed by a team of professionals who understand the implications of medical training in anesthesia procedures in obstetric-gynecologic anesthesia, aware of the relevance of current training and committed to quality teaching through new educational technologies.







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*This Postgraduate Certificate in  
Obstetric-Gynecologic Anesthesia is  
the most complete and up-to-date  
scientific program on the market”*

### Module 1. Update on Obstetric Anesthesia

- 1.1. Neuroaxial Analgesia in Labor
  - 1.1.1. New Analgesic Maintenance Modalities ("Walking Epidural")
- 1.2. Intravenous Analgesia in Labor
  - 1.2.1. New PCA Modalities with Remifentanyl
- 1.3. Analgesia in Labor:
  - 1.3.1. Neuroaxial Analgesia
  - 1.3.2. Intravenous Analgesia
- 1.4. Anticoagulants and Antithrombotics in Pregnant Women

### Module 2. Obstetric Anesthesia

- 2.1. Anesthesia for Cesarean Section
- 2.2. Difficult Airway in Pregnant Women
- 2.3. Hemodynamic Monitoring of Pregnant Women
- 2.4. Cardiopulmonary Resuscitation in Pregnant Women
- 2.5. Intrauterine Fetal Surgery and Anesthesia



### Module 3. Pathology Associated with Pregnant Patients

- 3.1. Hypertensive Disorders of Pregnancy
- 3.2. Obstetric Hemorrhage
- 3.3. Cardiopathic Pregnant Woman
- 3.4. Amniotic Fluid Embolism
- 3.5. Maternal Sepsis and Septic Shock
- 3.6. Non-obstetric Surgery in the Pregnant Patient

### Module 4. Update on Gynecologic Anesthesia

- 4.1. Anesthesia for Gynecologic and Oncologic Patients
- 4.2. Anesthesia in Breast Cancer



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





05

# Methodology

This training program provides you with a different way of learning. Our methodology uses a cyclical learning approach: ***Re-learning***.

This teaching system is used 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 Re-learning, 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

In a given situation, what would you do? Throughout the program, you will be presented with multiple simulated clinical cases based on real patients, where you will have to investigate, establish hypotheses and, finally, 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 can experience a way of learning that is shaking the foundations of traditional universities around the world.*



According to Dr. Gervas, the clinical case is the annotated presentation of a patient, or group of patients, which becomes a "case", an example or model that illustrates some peculiar clinical component, either because of its teaching potential 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 professional medical 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 grasp concepts, but also develop their mental capacity by evaluating real situations and applying their knowledge.
2. The learning process has a clear focus on practical skills that allow the 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.



## Re-learning Methodology

At TECH we enhance the Harvard case method with the best 100% online teaching methodology available: Re-learning.

Our 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, which represent a real revolution with respect to simply studying and analyzing cases.



*The physician will learn through real cases and by solving complex situations in simulated learning environments. These simulations are developed using state-of-the-art software to facilitate immersive learning.*



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

With this methodology we have trained more than 250,000 physicians with unprecedented success, in all clinical specialties regardless of the surgical load. All this in a highly demanding environment, where the students have a strong socio-economic profile and an average age of 43.5 years.

*Re-learning 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 (we learn, unlearn, forget, and re-learn). Therefore, we combine each of these elements concentrically.

The overall score obtained by our learning system is 8.01, according to the highest international standards.



In this program you will have access to the best educational material, prepared with you in mind:



#### Study Material

All teaching material is produced by the specialists who teach the course, specifically for the course, so that the teaching content is really specific and precise.

This content is then adapted in an audiovisual format that will create our way of working online, with the latest techniques that allow us to offer you high quality in all of the material that we provide you with.



#### Latest Techniques and Procedures on Video

We introduce you to the latest techniques, to the latest educational advances, to the forefront of current medical techniques. All this, in first person, with the maximum rigor, explained and detailed for your assimilation and understanding. And best of all, you can watch them as many times as you want.



#### Interactive Summaries

We present the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

This unique multimedia content presentation training system was awarded by Microsoft as a "European Success Story".



#### Additional Reading

Recent articles, consensus documents, international guides. in our virtual library you will have access to everything you need to complete your training.







#### Expert-Led Case Studies and Case Analysis

Effective learning ought to be contextual. Therefore, we will present you with real case developments in which the expert will guide you through 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 your knowledge throughout the program, through assessment and self-assessment activities and exercises: so that you can see how you are achieving your goals.



#### Classes

There is scientific evidence suggesting that observing third-party experts can be useful.

Learning from an expert strengthens knowledge and memory, and generates confidence in our difficult future decisions.



#### Quick Action Guides

We offer you the most relevant contents of the course in the form of worksheets or quick action guides. A synthetic, practical, and effective way to help you progress in your learning.



# 06 Certificate

The **Postgraduate Certificate in Obstetric-Gynecologic Anesthesia** guarantees, in addition to the most accurate and updated training, access to a qualification issued by **TECH Technological University**.





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*Successfully complete this training and receive your university degree without travel or laborious paperwork”*

This **Postgraduate Certificate in Obstetric-Gynecologic Anesthesia** is the most complete and up-to-date scientific program on the market.

After the student has passed the evaluations, they will receive their corresponding certificate issued by **TECH Technological University** by tracked mail.

The certificate issued by **TECH Technological University** will reflect the qualification obtained in the **Postgraduate Certificate**, and meets the requirements commonly demanded by labor exchanges, competitive examinations, and professionals from career evaluation committees.

Diploma: **Postgraduate Certificate in Obstetric-Gynecologic Anesthesia**

ECTS: **6**

Number of Hours: **150**



\*Apostille Convention. In the event that the student wishes to have their paper certificate issued with an apostille, TECH EDUCATION 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  
online training  
development language  
virtual classroom



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Obstetric-Gynecologic  
Anesthesia

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