

# Postgraduate Certificate

## Specific Situations of Local Anesthesia



## Postgraduate Certificate Specific Situations of Local Anesthesia

- » 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/specific-situations-local-anesthesia](http://www.techtute.com/us/medicine/postgraduate-certificate/specific-situations-local-anesthesia)

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# 01

# Introduction

Regional Anesthesia is key in complex surgical procedures, as 73% of surgeries require specific techniques to ensure the safety and well-being of the patient. TECH has designed a specialized program that delves into the approach of particular cases, such as patients with comorbidities, allergies or interventions in areas of difficult access. This approach allows professionals to adapt to different contexts with the most up-to-date techniques and improve the quality of care. The 100% online format, and the use of the Relearning methodology, promote active learning and constant updating. Its flexible design facilitates the organization of academic resources, allowing students to adapt the study to their needs and contribute to the advancement of regional anesthesia practice.





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*Boost your career in the medical field with this Postgraduate Certificate and master the most advanced techniques in the management of spatial situations in anesthesiology”*



Regional anesthesia plays an essential role in the medical field, allowing surgical procedures to be performed safely and efficiently. Currently, approximately 60% of surgical procedures use regional anesthesia to ensure the patient's well-being, especially in cases of patients with cardiovascular conditions, autoimmune diseases, metabolic disorders and other complex health problems. In this context, the Postgraduate Certificate in Specific Situations of Regional Anesthesia is presented as a valuable opportunity for health professionals interested in deepening their knowledge of the latest advances in this area and perfecting their skills.

This TECH-designed program offers a robust curriculum covering key topics in regional anesthesia, such as the approach in patients with pre-existing neurological diseases, the proper management of antiplatelet and anticoagulation therapies, advanced techniques for postoperative pain control, and regional anesthesia in patients with pulmonary and other systemic conditions. Upon completion of the course, participants will be able to implement state-of-the-art regional anesthesia techniques, improve the quality of patient care, and reduce potential intraoperative and postoperative complications.

This degree stands out for its 100% online format, which allows students to access academic materials and resources anytime, anywhere. In addition, the course adopts an innovative pedagogical methodology based on Relearning, which facilitates the acquisition and consolidation of knowledge and skills through active learning and adaptation to the needs of each student.

Its high quality contents are supported by expert teachers in the field, who provide professionals with the most updated tools to excel in the field of regional anesthesia and significantly improve patient care in their medical practice.

This **Postgraduate Certificate in Specific Situations of Local Anesthesia** contains the most complete and up-to-date scientific program on the market. The most important features include:

- ♦ Practical cases presented by experts in Specific Situation of Regional Anesthesia
- ♦ 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.
- ♦ Practical exercises where the self-assessment process can be carried out to improve learning
- ♦ Its special emphasis on innovative methodologies
- ♦ Theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments
- ♦ Content that is accessible from any fixed or portable device with an Internet connection



*Strengthen your professional profile and expand your opportunities for success in the medical field by delving into the most innovative aspects of regional anesthesia”*

“

*Delve into specialized topics such as acute and chronic pain management, nerve block techniques and ultrasound applications in regional anesthesia with this online program”*

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 professional 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 professional must try to solve the different professional practice situations that are presented throughout the academic course. For this purpose, the student will be assisted by an innovative interactive video system created by renowned experts.

*Get up to date on the most advanced methods in the treatment of pain in special populations, such as pediatric and geriatric patients.*

*Thanks to the Relearning method, you will be able to continue your professional development while you update yourself in all the aspects that make up the key aspects of anesthetic management of allergic patients.*



# 02

# Objectives

In order to develop in the graduate the necessary skills to perform with agility and efficiency in their field, and to have successful procedures, this Postgraduate Certificate will allow the student to deepen in the latest techniques for the anesthetic approach in patients with specific conditions or precedents. Thus, the medical professional will be at the forefront of the most recent advances in this field and will expand their job opportunities.







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*Boost yourself professionally in your field of work reaching all your goals thanks to this Postrgraduate Certificate in Specific Situations of Local Anesthesia”*



## General Objectives

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- ♦ Learn in depth the fundamentals that allow us to perform procedures with regional anesthesia
- ♦ Familiarize with the anatomy, physiology and pharmacology applied to regional anesthesia
- ♦ Specifically study the types of central blocks, as well as their indications, contraindications, technical aspects and complications
- ♦ Specifically study the types of peripheral blocks, as well as their indications, contraindications, technical aspects and complications
- ♦ Review limb, head, neck, thoracic and abdominal blocks, as well as those useful for difficult airway management
- ♦ Review the basic fundamentals of electrostimulation and ultrasound and apply them to the performance of blocks
- ♦ Being familiar with the equipment necessary to perform the blocks
- ♦ Know in depth the current clinical practice guidelines for the preoperative management of patients requiring regional anesthesia
- ♦ List the particularities of outpatient surgery requiring regional anesthesia. Specifically study the types of Peripheral blocks, as well as their indications, contraindications, technical aspects and complications





## Specific Objectives

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- ◆ Know in depth the aspects to be taken into account in a patient with peripheral neuropathy who is going to undergo regional anesthesia
- ◆ Describe the appropriate management of the anticoagulated/anti-aggregation patient who is potentially undergoing a regional technique
- ◆ Become familiar with regional continuum techniques for the management of acute postoperative pain
- ◆ Identify the factors related to comorbidity in the face of these anesthetic techniques
- ◆ Describe the particularities of elderly and pediatric patients



*You will be able to access the content with total freedom, 24 hours a day, setting your own pace of study and without limitations"*



# 03

# Course Management

TECH's commitment to providing quality education is reflected in the selection of its prestigious teaching team for this degree. Composed of experts with vast experience in the clinical, research and academic fields of regional anesthesia, they have designed a didactic and applied program that includes audiovisual content, additional readings and real clinical cases. This solid educational foundation, coupled with the practical approach of the course, will enable health professionals to successfully incorporate the knowledge acquired in their daily work and thus enhance their professional growth.







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*You will succeed under the guidance of a highly qualified and experienced teaching team that will guide you through rigorous content applicable to your professional practice”*

## Management



### Dr. Burgueño González, María Dolores

- ◆ Anesthesia Coordinator of Cantoblanco Hospital
- ◆ Responsible for Surgical Patient Safety at Cantoblanco Hospital
- ◆ Specialist Physician at the Virgen del Mar Hospital
- ◆ MIR in Anesthesiology, Resuscitation and Pain Therapy at the University Hospital La Paz
- ◆ Master PROANES: Official Updating Program in Anesthesiology, Resuscitation and Pain Therapy by the Catholic University of Valencia
- ◆ Postgraduate Diploma in Airway Management by the Catholic University of Valencia

## Professors

### Dr. Vallejo Sanz, Irene

- ◆ FEA in Anesthesiology and Resuscitation at the HU La Paz
- ◆ Collaborator in Clinical Simulation workshops
- ◆ MIR in Anesthesiology, Resuscitation and Pain Therapy
- ◆ European Diploma of Anaesthesiology and Intensive Care, EDAIC part I
- ◆ Member of the Illustrious Official College of Physicians of Madrid
- ◆ Member of the Spanish Society of Anesthesiology and Pain Treatment (SEDAR)

### Dr. Salgado Aranda, Patricia

- ◆ FEA in Anesthesiology and Resuscitation at the HU La Paz
- ◆ Teaching and research experience
- ◆ Clinical Teaching Collaborator of the University Hospital La Paz
- ◆ PhD from the Autonomous University of Madrid
- ◆ Degree in Medicine from the University of Alcalá, Spain
- ◆ Master's Degree in Infectious Diseases in Intensive Care
- ◆ Member of the Illustrious Official College of Physicians of Madrid

**Dr. Canser Cuenca, Enrique**

- ♦ FEA of Anesthesiology and Resuscitation at El Escorial Hospital
- ♦ Specialist in Anesthesiology and Resuscitation at the University Hospital La Paz
- ♦ Residency in the Department of Anesthesiology and Resuscitation at the University Hospital La Paz
- ♦ PhD in "Neurosciences: Morphofunctional organization of the nervous system"
- ♦ Master in Pathophysiology and Treatment of Pain by the Autonomous University of Barcelona
- ♦ Master's Degree in Palliative Medicine and Supportive Care of the Cancer Patient

**Dr. Rodríguez Roca, María Cristina**

- ♦ FEA of Anesthesiology and Resuscitation at the University Hospital La Paz
- ♦ Teaching and research experience in several university centers
- ♦ PhD from the Autonomous University of Madrid
- ♦ European Postgraduate Certificate in Anesthesia and Critical Care (EDAIC)
- ♦ Member of the Spanish Society of Anesthesiology and Pain Treatment (SEDAR)
- ♦ Member of the working group of Chronic Pain of the Spanish Society of Anesthesiology and Resuscitation

**Dr. Martín Martín, Almudena**

- ♦ FEA in Anesthesiology and Resuscitation at the HU La Paz
- ♦ Clinical Teaching Collaborator of the University Hospital La Paz
- ♦ MIR in Anesthesiology, Resuscitation and Pain Therapy at the University Hospital La Paz
- ♦ Master of Continuing Education in "Patient Management"

**Dr. Zurita Copoví, Sergio**

- ♦ FEA of Anesthesiology and Resuscitation at the University Hospital La Paz
- ♦ Specialist Physician at the Virgen del Mar Hospital
- ♦ Resident Tutor at the University Hospital La Paz
- ♦ Clinical teaching collaborator at the Autonomous University of Madrid
- ♦ Master's Degree in Clinical Management, Medical and Health Care Management
- ♦ Master in Patient Management
- ♦ European Postgraduate Certificate in Anesthesia and Critical Care
- ♦ Member of the Spanish Society of Anesthesiology and Pain Treatment (SEDAR)



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

# 04

## Structure and Content

Designed to allow the deepening of the professional's previous knowledge, the content of this syllabus has been structured based on the requirements and indications of the teaching team chosen for this Postgraduate Certificate. Throughout this academic process, students will address cutting-edge topics in regional anesthesia, including advanced nerve block techniques, the application of ultrasound in regional anesthesia, updated protocols in emergency situations and multidisciplinary approaches to pain management in special populations such as pediatrics and geriatrics. This careful selection of topics, enriched by the experience of the teaching staff, ensures that health professionals acquire state-of-the-art skills and competencies, thus positioning themselves as leaders in the field of regional anesthesia.





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*Enroll now and master the most advanced techniques in the management of antiplatelet and anticoagulant therapies”*

## Module 1. Specific Situations of Regional Anesthesia

- 1.1. Regional Anesthesia in Patients with Pre-existing Neurological Disease
  - 1.1.1. Introduction
  - 1.1.2. Peripheral Nervous System Disorders
    - 1.1.2.1. Hereditary Peripheral Neuropathy
    - 1.1.2.2. Acquired Peripheral Neuropathy. Diabetic Polyneuropathy
    - 1.1.2.3. Chemotherapy-Induced Neuropathy
    - 1.1.2.4. Entrapment Neuropathy
    - 1.1.2.5. Inflammatory Neuropathy. Guillén-Barré Barré Syndrome
    - 1.1.2.6. Post-Surgical Inflammatory Neuropathy
  - 1.1.3. Central Nervous System disorders
    - 1.1.3.1. Multiple Sclerosis
    - 1.1.3.2. Post Polio Syndrome
    - 1.1.3.3. Amyotrophic Lateral Sclerosis
    - 1.1.3.4. Spinal Stenosis and Neural Disc Disease.
    - 1.1.3.5. Spinal Cord Injury
- 1.2. Anti-Aggregation Therapy, Anticoagulation Therapy
  - 1.2.1. Introduction
  - 1.2.2. Minimum Hemostatic Values
  - 1.2.3. Anticoagulants, Antiplatelet Agents and Anesthesia
    - 1.2.3.1. Unfractionated Heparin
    - 1.2.3.2. Low Molecular Weight Heparin
    - 1.2.3.3. Fondaparinux
    - 1.2.3.4. Antivitamin K Drugs (Acenocoumarol, Warfarin)
    - 1.2.3.5. Platelet Aggregation Inhibitors
  - 1.2.4. Ophthalmological Procedures
    - 1.2.4.1. Surgeries in which Antithrombotic Treatment can Be Continued
    - 1.2.4.2. Surgeries in which Antithrombotic Treatment Should Be Discontinued and Bridging Therapy Considered
    - 1.2.4.3. How to Use Guides in Peripheral Nerve Blocks



- 1.3. Continuous Techniques for Postoperative Pain Control
  - 1.3.1. Introduction
  - 1.3.2. Drugs:
    - 1.3.2.1. Coadjuvants
    - 1.3.2.2. Continuous Perfusions Through Catheters
    - 1.3.2.3. New Local Anesthetics
  - 1.3.3. Material
    - 1.3.3.1. Needle and Catheter
    - 1.3.3.2. Infusion Pumps
  - 1.3.4. Modes of Administration
    - 1.3.4.1. Boluses
    - 1.3.4.2. Continuous Administration
  - 1.3.5. Techniques
    - 1.3.5.1. Interscalene Block
    - 1.3.5.2. Infraclavicular Block
    - 1.3.5.3. Axillary Block
    - 1.3.5.4. Posterior Lumbar Plexus Block
    - 1.3.5.5. Anterior Lumbar Plexus Block
    - 1.3.5.6. Proximal Sciatic Nerve Blocks
    - 1.3.5.7. Proximal Sciatic Nerve Blocks
    - 1.3.5.8. Distal Blocks
- 1.4. Regional Anesthesia and Pulmonary Disease
  - 1.4.1. Introduction
  - 1.4.2. Epidural and Spinal Anesthesia
  - 1.4.3. Brachial Plexus Block
  - 1.4.4. Paravertebral Blockade and Intercostal Nerves
  - 1.4.5. Importance of Regional Anesthesia during the COVID-16 Pandemic
- 1.5. Regional Anesthesia and other Systemic Diseases
  - 1.5.1. Renal disease
    - 1.5.1.1. Introduction
    - 1.5.1.2. Effects on Renal Function
    - 1.5.1.3. Considerations in Patients with Renal Pathology
  - 1.5.2. Liver Diseases
    - 1.5.2.1. Introduction
    - 1.5.2.2. Effects on Hepatic Blood Flow
    - 1.5.2.3. Hepatic Coagulopathy
  - 1.5.3. Diabetes mellitus.
    - 1.5.3.1. Introduction
    - 1.5.3.2. Effects on Glucose Homeostasis
    - 1.5.3.3. Peripheral Neuropathy in the Diabetic Patient
  - 1.5.4. Obesity
  - 1.5.5. Cancer
- 1.6. Regional Anesthesia in the Elderly
  - 1.6.1. Introduction and Definition of the Elderly
    - 1.6.1.1. Is Anesthetic Risk Increased in the Elderly?
    - 1.6.1.2. What is the Reason for this?
    - 1.6.1.3. How is this Organ Degradation Reflected at the Level of all Systems?
    - 1.6.1.4. Is the Metabolism of Anesthetic Drugs Altered in the Elderly Patient?
    - 1.6.1.5. What type of Interventions are Most Common in the Elderly?
    - 1.6.1.6. Is Regional Anesthesia Specially Indicated in these Patients?
  - 1.6.2. Physiologic Changes Associated with Aging and Considerations for Regional Anesthesia/Analgesia
    - 1.6.2.1. Nervous System Function
    - 1.6.2.2. Pulmonary Function
    - 1.6.2.3. Pharmacokinetic and Pharmacodynamic Changes in the Elderly
    - 1.6.2.4. Multimodal Pharmacotherapy and the Elderly
    - 1.6.2.5. Kidney
    - 1.6.2.6. Physiology and Perception of Pain in the Elderly
  - 1.6.3. Assessment of Pain in Elderly Patients with Cognitive Impairment
  - 1.6.4. Considerations for the Use of Regional and Neural Blockade
  - 1.6.5. Types of Regional Blocks in the Elderly
    - 1.6.5.1. Epidural Anesthesia and Analgesia
    - 1.6.5.2. Intrathecal Opioid Analgesia
    - 1.6.5.3. Peripheral Nerve and Nerve Plexus Blockage

- 1.7. Regional Anesthesia in Pediatrics
  - 1.7.1. Introduction
    - 1.7.1.1. Why Regional Anesthesia in Pediatric Patients?
    - 1.7.1.2. Applications of Pediatric Regional Anesthesia
    - 1.7.1.3. Regional anesthesia: Awake or Asleep?
  - 1.7.2. Peculiarities of Pediatric Regional Anesthesia
  - 1.7.3. Neurostimulation
    - 1.7.3.1. Anatomical Differences Between Children and Adults
    - 1.7.3.2. Pharmacology of Local Anesthetics
    - 1.7.3.3. Dosage of Local Anesthetics
    - 1.7.3.4. Toxicity of Local Anesthetics
  - 1.7.4. Types of Peripheral Blocks
    - 1.7.4.1. Upper Limb Blocks
    - 1.7.4.2. Lower Limb Blocks
    - 1.7.4.3. Penile Block
    - 1.7.4.4. Ilioinguinal/Iliohypogastric Block
    - 1.7.4.5. Rectus Sheath Block or Umbilical Blockade
    - 1.7.4.6. Caudal Block
  - 1.7.5. Central Blocks
    - 1.7.5.1. Epidural Anesthesia
    - 1.7.5.2. Subarachnoid Anesthesia
  - 1.7.6. Complications of Pediatric Regional Anesthesia
- 1.8. Allergy and Regional Anesthesia
  - 1.8.1. Introduction
    - 1.8.1.1. Type A Reactions
    - 1.8.1.2. Type B Reactions
    - 1.8.1.3. Type C Reactions
  - 1.8.2. Epidemiology
  - 1.8.3. Pathophysiology
    - 1.8.3.1. Type I: Immediate Hypersensitivity or IgE Mediated Hypersensitivity.
    - 1.8.3.2. Type II: Cytotoxic or IgG, IgM Mediated Reaction
    - 1.8.3.3. Type III: Immunocomplex-Mediated Reaction
    - 1.8.3.4. Type IV: Delayed Hypersensitivity or T-Cell Mediated reaction





- 1.8.4. Etiology
- 1.8.5. Signs and Symptoms
- 1.8.6. Diagnostic
- 1.8.7. Differential Diagnosis
  - 1.8.7.1. Reddening Syndrome
  - 1.8.7.2. Syndromes Associated with Substance Use
  - 1.8.7.3. Increased Endogenous Histamine Production
  - 1.8.7.4. Functional Criteria
  - 1.8.7.5. Others
- 1.8.8. Treatment
- 1.9. Complications in Regional Anesthesia
  - 1.9.1. Introduction
  - 1.9.2. Complications following Neuroaxial Block Procedures
    - 1.9.2.1. Post Dural Puncture Headache
    - 1.9.2.2. Complications due to Air Injection. Pneumoencephalon
    - 1.9.2.3. Spinal Cord Compression
    - 1.9.2.4. Neurological Damage. Neurotoxicants
    - 1.9.2.5. Infectious Complications
    - 1.9.2.6. Iatrogenic Spinal Tumors
    - 1.9.2.7. Tattoos and Anesthetic Considerations
  - 1.9.3. Complications after Peripheral Nerve Blocks
    - 1.9.3.1. Introduction
    - 1.9.3.2. Preventive Measures
    - 1.9.3.3. Classification of Acute Nerve Injuries
  - 1.9.4. Mechanisms Capable of Producing Complications During the Performance of Nerve Blocks
    - 1.9.4.1. Mechanical Mechanism
    - 1.9.4.2. Vascular Mechanism
    - 1.9.4.3. Chemical Mechanism
    - 1.9.4.4. Infectious Mechanism
    - 1.9.4.5. Systemic Toxicity

#### 1.10. Regional Anesthesia and Patient Safety

- 1.10.1. Introduction
- 1.10.2. How has Regional Anesthesia Evolved during these Years?
- 1.10.3. Advantages and Disadvantages of the Different Types of Regional Anesthesia.
- 1.10.4. What is ISO 80369-6 and how does it Affect Regional Anesthesia?
- 1.10.5. Comparison between Traditional Spinal Needles and the new NRFIT version.
- 1.10.6. Adjusted *checklist* for Regional Anesthesia
- 1.10.7. SENSAR



*Adapt easily to the innovative Relearning methodology, which facilitates the acquisition and consolidation of knowledge through active learning”*

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. 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 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 Specific Situations of Local Anesthesia 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 Specific Situations of Local Anesthesia** 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 Specific Situations of Local Anesthesia**

Modality: **online**

Duration: **6 weeks**

Accreditation: **6 ECTS**





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



## Postgraduate Certificate

Specific Situations of  
Local Anesthesia

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# Postgraduate Certificate

## Specific Situations of Local Anesthesia

