

# Postgraduate Certificate Neuroanesthesia





## Postgraduate Certificate Neuroanesthesia

- » Modality: online
- » Duration: 6 weeks
- » Certificate: TECH Global University
- » Credits: 8 ECTS
- » Schedule: at your own pace
- » Exams: online

Website: [www.techtute.com/us/medicine/postgraduate-certificate/postgraduate-certificate-neuroanesthesia](http://www.techtute.com/us/medicine/postgraduate-certificate/postgraduate-certificate-neuroanesthesia)

# Index

01

Introduction

---

*p. 4*

02

Objectives

---

*p. 8*

03

Course Management

---

*p. 12*

04

Structure and Content

---

*p. 18*

05

Methodology

---

*p. 22*

06

Certificate

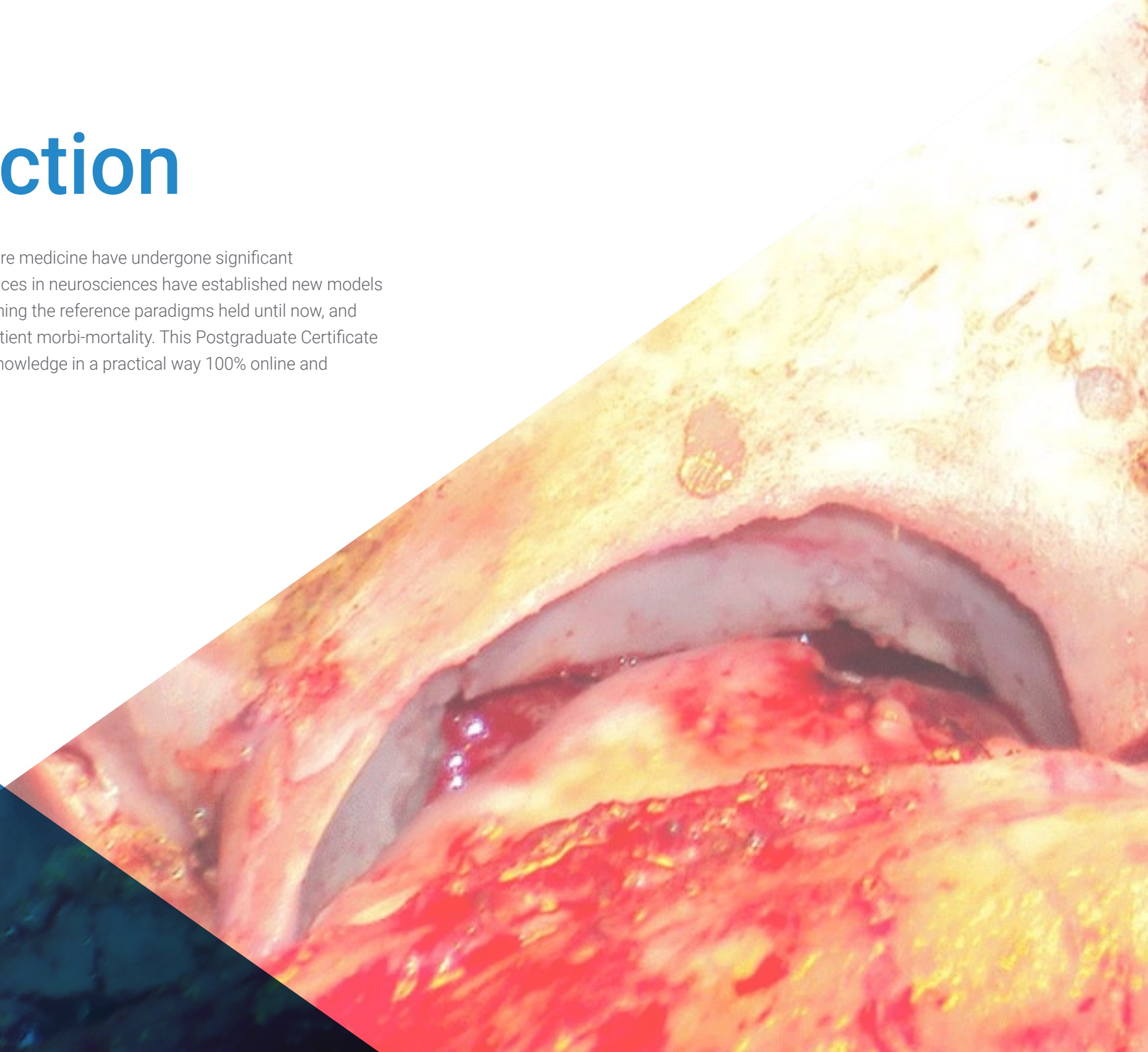
---

*p. 30*

# 01

# Introduction

Anesthesia procedures in critical care medicine have undergone significant development in recent years. Advances in neurosciences have established new models in anesthesia procedures, transforming the reference paradigms held until now, and contributing decisively to reduce patient morbi-mortality. This Postgraduate Certificate allows specialists to expand their knowledge in a practical way 100% online and adapted to their needs.







“

*The new scenarios in anesthesia procedures in critically ill patients motivate us to propose new training programs that meet the real needs of experienced professionals, so that they can incorporate advances in neuroanesthesia management into their medical practice”*

As in all other fields of medicine, the neurosciences underlying the practice of neuroanesthesia and neurocritical care are constantly being updated and it is necessary to make an effort to be up to date in the understanding of the possible clinical situations that we usually face.

This Postgraduate Certificate includes the advances that help us be prepared to face the particular challenges posed by each patient. All the topics include physiopathological, pharmacological and technological advances that concern them, but there are topics that are novel in themselves, such as deep brain stimulation, epilepsy surgery, minimally invasive surgery or robotic surgery.

Through the latest educational technology, the program is designed to facilitate specialist physicians to update on neuroanesthesia procedures.



*You will be able to learn, through the latest educational technology, the most recent advances in Neuroanesthesia”*

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

- ♦ 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.
- ♦ Presentation of practical workshops on procedures and techniques in neuroanesthesia.
- ♦ An algorithm-based interactive learning system for decision-making in the clinical situations presented throughout the course.
- ♦ All of 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.

“

*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 Neuroanesthesia, you will obtain a qualification from TECH Global University”*

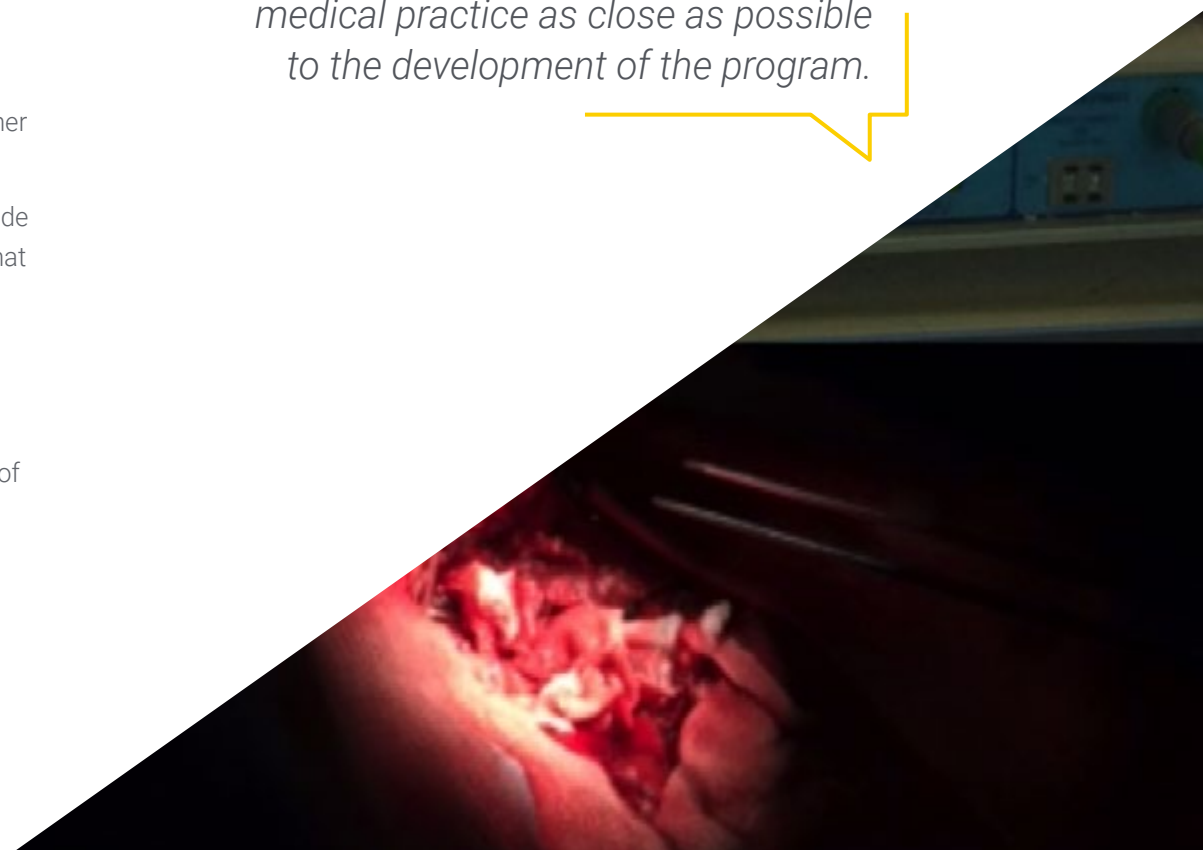
The teaching staff is made up of a team of leading anesthesiologists, who bring to this training the experience of their work, in addition to recognized specialists in other medical areas.

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.

This program is designed around Problem Based Learning, whereby the student must try to solve the different professional practice situations that arise during the Postgraduate Certificate. 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.

*This Postgraduate Certificate offers training in simulated environments, which provides an immersive learning experience designed to train for real-life situations.*

*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 neuroanesthesia, 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.





“

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



## General Objective

---

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



## Specific Objectives

---

- Update knowledge in basic neurosciences with repercussions in clinical practice, such as advances in neuroprotection, the appearance of new oral anticoagulant drugs, and the review of the latest guidelines related to them and the application of antiplatelet drugs in the field of neuroanesthesia.
- Analyze the importance of advanced multimodal monitoring for comprehensive management of patients with critical central nervous system involvement.
- Update on pain management procedures in the perioperative period of neurosurgical patients with the application of new techniques that increase patient safety, such as ultrasound-guided blocks.



of tumor extension, awake patient surgery for tumor resection in eloquent areas, anesthesia for epilepsy surgery, Parkinson's and other movement disorders, as well as minimally invasive surgery techniques, anesthesia in neuroradiological procedures, intraoperative monitoring of tissue oxygen pressure and the use of videoangiography with indocyanine green.

- ♦ Incorporate new approaches in traumatic brain injury and endocranial hypertension management.
- ♦ Describe advances in neuroanesthesia and neurocritical care in pediatrics.

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





# 03

# Course Management

The materials have been created by a team of leading professionals in the field of Neuroanesthesia, 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.







“

*Learn about the latest advances in  
Neuroanesthesia 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

## Professors

### Dr. Badenes, Rafael

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

### Dr. Cruz, Esperanza

- ◆ Degree in Medicine and Surgery
- ◆ Doctor Specialist in Anesthesiology, Resuscitation and Pain Therapy
- ◆ Attending Physician
- ◆ Carlos Haya Regional University Hospital. Malaga, Spain

### Dr. Echeveri, Marisol

- ◆ Degree in Medicine and Surgery
- ◆ Doctor Specialist in Anesthesiology, Resuscitation and Pain Therapy
- ◆ Attending Physician
- ◆ La Fe Polytechnic and University Hospital. Valencia, Spain

### Dr. Fernández, Jesús

- ◆ Degree in Medicine and Surgery
- ◆ Doctor Specialist in Anesthesiology, Resuscitation and Pain Therapy
- ◆ Attending Physician
- ◆ La Ribera University Hospital. Alzira, Spain
- ◆ Dr. Fran, Tomás
- ◆ Degree in Medicine and Surgery
- ◆ Doctor Specialist in Anesthesiology, Resuscitation and Pain Therapy
- ◆ Attending Physician
- ◆ La Fe Polytechnic and University Hospital. Valencia, Spain

### Dr. García, Natalia

- ◆ Degree in Medicine and Surgery
- ◆ Doctor Specialist in Anesthesiology, Resuscitation and Pain Therapy
- ◆ Attending Physician
- ◆ La Fe Polytechnic and University Hospital. Valencia, Spain

### Dr. García Huete, Lucía

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

### Dr. Ingelmo, Idelfonso

- ◆ Degree in Medicine and Surgery
- ◆ Doctor Specialist in Anesthesiology, Resuscitation and Pain Therapy
- ◆ Attending Physician
- ◆ Ramón y Cajal University Hospital Madrid, Spain

### Dr. Jiménez, Inma

- ◆ Degree in Medicine and Surgery
- ◆ Doctor Specialist in Anesthesiology, Resuscitation and Pain Therapy
- ◆ Attending Physician
- ◆ La Fe Polytechnic and University Hospital. Valencia, Spain

### Dr. López, Amparo

- ◆ Degree in Medicine and Surgery
- ◆ Doctor Specialist in Anesthesiology, Resuscitation and Pain Therapy
- ◆ Attending Physician
- ◆ La Fe Polytechnic and University Hospital. Valencia, Spain

**Dr. López, Rosa M.**

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

**Dr. Martínez Ferreiro, Lucía**

- ◆ Degree in Medicine and Surgery
- ◆ Doctor Specialist in Anesthesiology, Resuscitation and Pain Therapy
- ◆ Attending Physician
- ◆ La Fe Polytechnic and University Hospital. Valencia, Spain

**Dr. Navarro, Ricardo**

- ◆ Degree in Medicine and Surgery
- ◆ Doctor Specialist in Anesthesiology, Resuscitation and Pain Therapy
- ◆ Attending Physician
- ◆ Gómez Ulla Military Hospital. Madrid, Spain

**Dr. Pérez Caballero, Paula**

- ◆ Degree in Medicine and Surgery
- ◆ Doctor Specialist in Anesthesiology, Resuscitation and Pain Therapy
- ◆ Attending Physician
- ◆ La Fe Polytechnic and University Hospital. Valencia, Spain





**Dr. Plaza, Miguel**

- ◆ Degree in Medicine and Surgery
- ◆ Doctor Specialist in Anesthesiology, Resuscitation and Pain Therapy
- ◆ Attending Physician
- ◆ La Fe Polytechnic and University Hospital. Valencia, Spain

**Dr. Pons , Vicente Manuel**

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

**Dr. Rubio, Rafael**

- ◆ Degree in Medicine and Surgery
- ◆ Doctor Specialist in Anesthesiology, Resuscitation and Pain Therapy
- ◆ Attending Physician
- ◆ Virgen del Rocío University Hospital. Sevilla, España

**Dr. Saiz-Sapena, Nieves**

- ◆ Degree in Medicine and Surgery
- ◆ Doctor Specialist in Anesthesiology, Resuscitation and Pain Therapy
- ◆ Attending Physician 9 d' Octubre Hospital. Valencia, Spain

**Dr. Sanabria Carretero, Pascual**

- ◆ Degree in Medicine and Surgery
- ◆ Doctor Specialist in Anesthesiology, Resuscitation and Pain Therapy
- ◆ Attending Physician
- ◆ La Paz Children Hospital Madrid, Spain

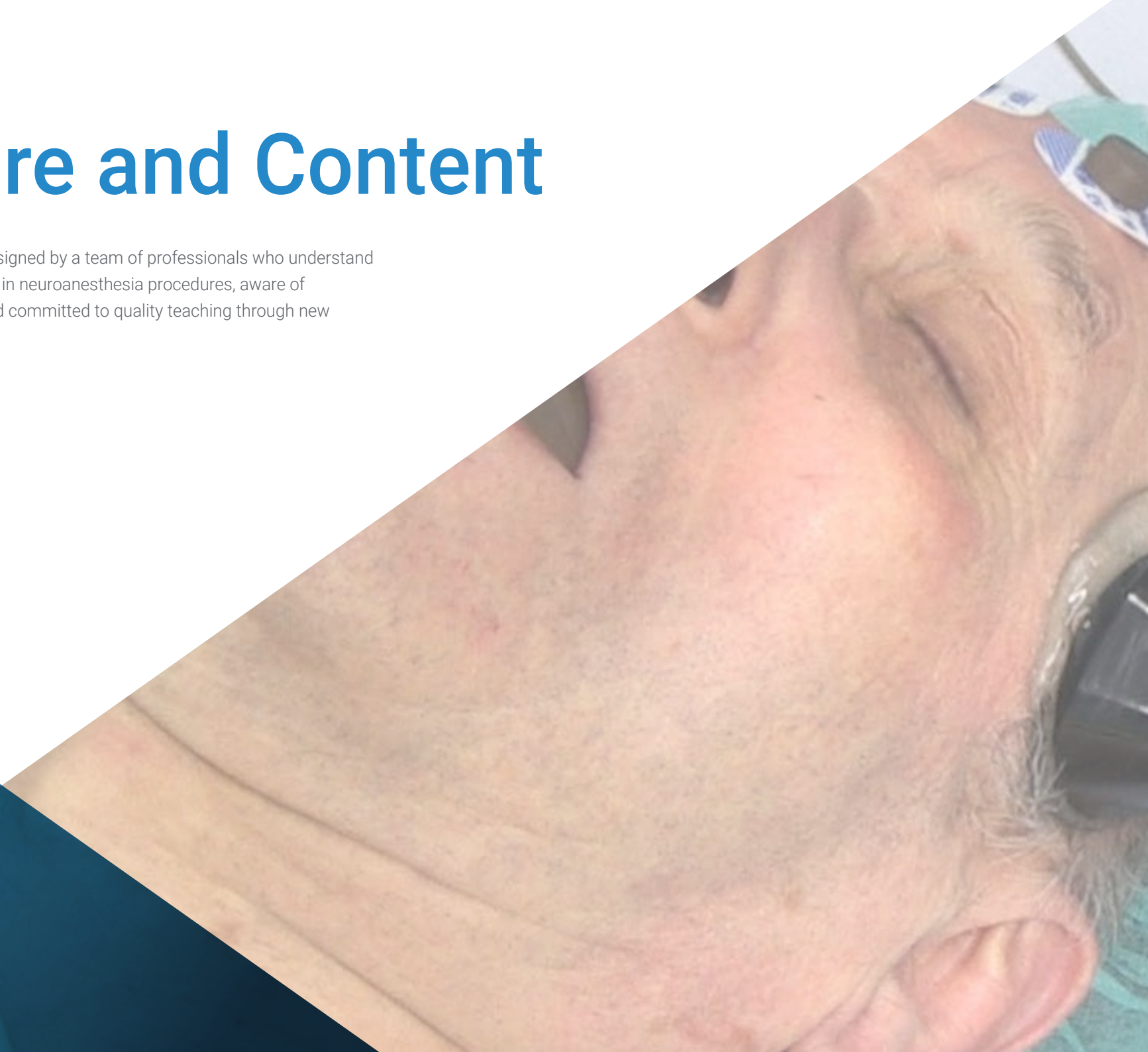
**Dr. Torres Morera, Luis Miguel**

- ◆ Degree in Medicine and Surgery
- ◆ Doctor Specialist in Anesthesiology, Resuscitation and Pain Therapy
- ◆ Clinical Chief Officer
- ◆ Puerta del Mar University Hospital. Cadiz, Spain

# 04

# Structure and Content

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





“

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

## Module 1. Neuroanesthesia

- 1.1. New Developments in Brain Protection. Pharmacological and Non-Pharmacological Measures
- 1.2. Neuroanesthesia and Hemostasis
- 1.3. Advances in Intraoperative and Critical Multimodal Neuromonitoring
- 1.4. Perioperative Management of Pain in the Neurosurgical Patient
- 1.5. Updates in the Management of Supratentorial and Infratentorial Tumors
- 1.6. Anesthesia for Craniectomy in the Awake Patient
- 1.7. Anesthesia in Deep Brain Stimulation (Movement Disorders and Parkinson's) and Epilepsy Surgery
- 1.8. Update on Anesthesia for Neuroendoscopic Surgery
- 1.9. Update on Anesthesia in Pituitary and Skull Base Surgery
- 1.10. Advances in Neuroanesthesia and Critical Care in Neurovascular Pathology (Aneurysmal and Malphoma)
- 1.11. Advances in Anesthesia for Interventional Neuroradiology
- 1.12. Advances in the Treatment of Traumatic Brain Injury and Intracranial Hypertension
- 1.13. Advances in Acute Spinal Cord Injury
- 1.14. Advances in Neuroanesthesia and Neurocritical Care in Pediatrics







“

*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. 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 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.



“

*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

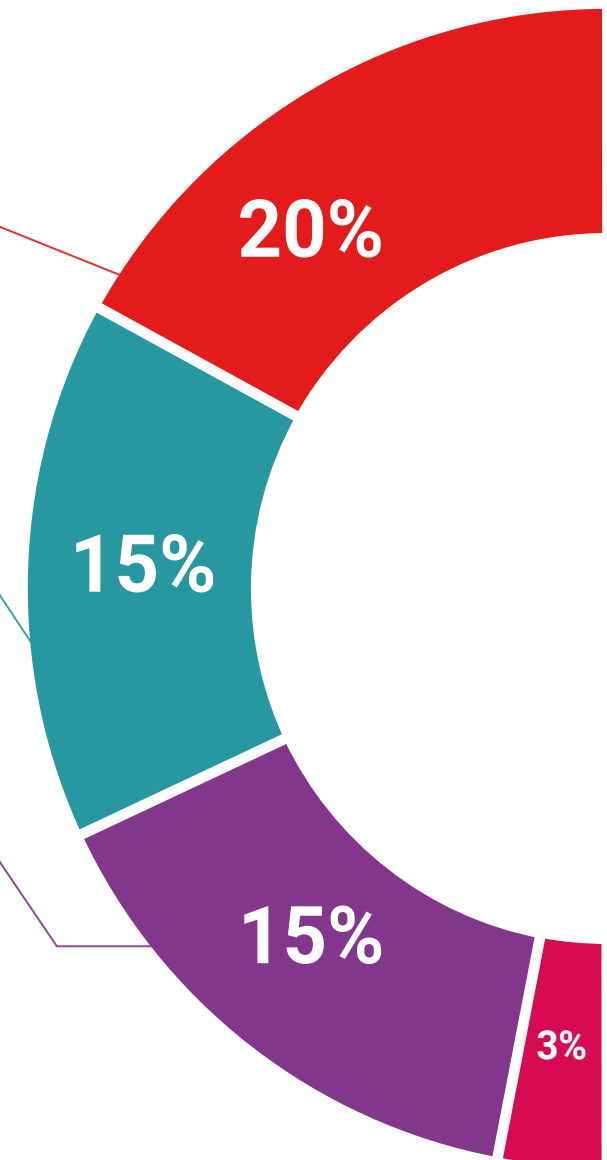
We present the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

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

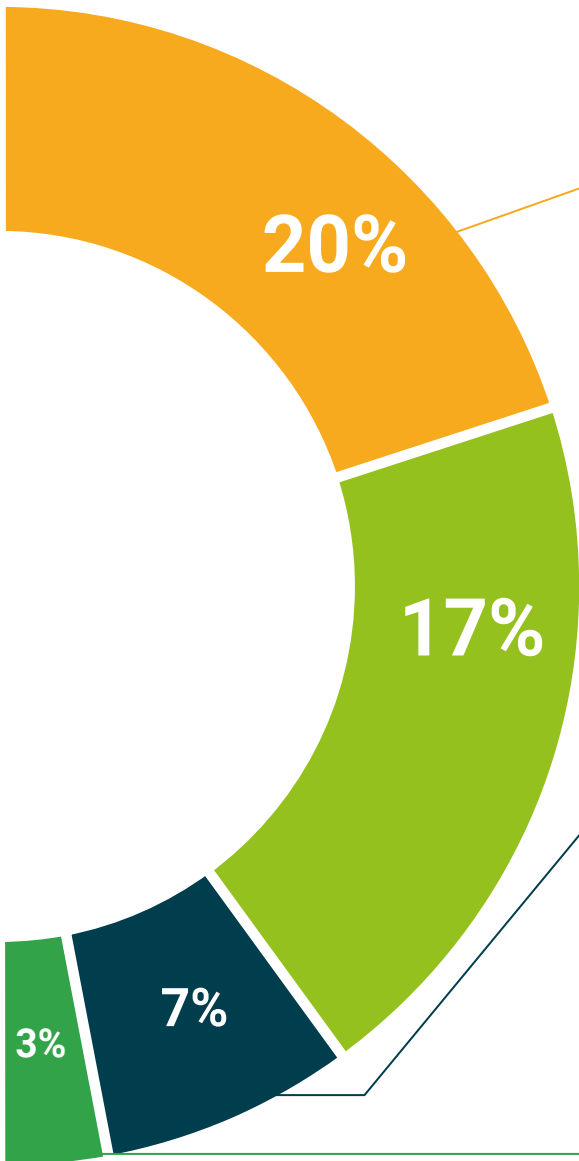


#### Additional Reading

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 Neuroanesthesia guarantees , in addition to the most rigorous and updated training, access to a qualification issued by TECH Global University.





“

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

This program will allow you to obtain your **Postgraduate Certificate in Neuroanesthesia** 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 Neuroanesthesia**

Modality: **online**

Duration: **6 weeks**

Accreditation: **8 ECTS**





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



## Postgraduate Certificate Neuroanesthesia

- » Modality: online
- » Duration: 6 weeks
- » Certificate: TECH Global University
- » Credits: 8 ECTS
- » Schedule: at your own pace
- » Exams: online

# Postgraduate Certificate Neuroanesthesia

