

# Postgraduate Diploma

Stroke, Trauma, Neuro-Oncology  
and Nervous System Infections





## Postgraduate Diploma Stroke, Trauma, Neuro-Oncology and Nervous System Infections

- » Modality: online
- » Duration: 6 months
- » Certificate: TECH Global University
- » Accreditation: 24 ECTS
- » Schedule: at your own pace
- » Exams: online

Website: [www.techtute.com/us/medicine/postgraduate-diploma/postgraduate-diploma-stroke-trauma-neuro-oncology-nervous-system-infections](http://www.techtute.com/us/medicine/postgraduate-diploma/postgraduate-diploma-stroke-trauma-neuro-oncology-nervous-system-infections)

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# 01

# Introduction

Stroke, cranioencephalic trauma, neuro-oncological pathologies and infections of the nervous system require from the front line professional, at first, and from the rest of the specialists afterwards, a series of specific knowledge that facilitates and promotes an efficient intervention. This program aims to train with rigor, teach with precision and provide ways of improvement so that the student is able to lead realistic care and teaching programs in this area.





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*All the methodology necessary  
for the non-specialist medical  
professional in the field of neurology,  
in a specific and concrete program”*

Although Neurological Diagnosis is now made with greater certainty than in past decades, this accuracy has undoubtedly been helped by the advent of increasingly sophisticated Diagnostic Research Techniques. These advances involve new knowledge and scientific developments fostered by incessant Search.

Non-specialized medical professionals need access to the necessary knowledge in this field, even if they are not specialists in this field of work, in order to be able to act efficiently. However, accessing the necessary knowledge in this field and keeping up to date in this field can become incompatible with professional and personal Life. On the other hand, professionals need to find ways of updating their knowledge that are compatible with their personal and professional lives.

This program has been created to provide an efficient response to this need: it focuses on real healthcare conditions, is eminently practical, and does not go beyond what is essential in complex topics with little clinical repercussion.

The field of Neurology is wide, complex, and extensive. The program will guide students so that they can globally, in a balanced and staggered manner, consider all the methodology required for the basic mastery of the specialty at the corresponding level.

Focused on the real context in which non-specialist physicians act and their diagnostic and care needs, this Postgraduate Diploma in Stroke, Trauma, Neuro-Oncology and Nervous System Infections will develop the knowledge that is truly necessary in a first or second level practice, avoiding dispersion in the learning effort.

The development of this program aims to prepare with rigor, teach with precision and provide ways of improvement so that the students will be able to lead realistic assistance and teaching programs in the specific field of their professional competencies.

This **Stroke, Trauma, Neuro-Oncology and Nervous System Infections** contains the most complete and up-to-date scientific program on the market. The most important features include:

- Development of a Large Number of Case Studies Presented by Experts
- Graphic, schematic, and highly practical contents
- The latest developments and cutting-edge advances in this field
- Practical exercises where the self-evaluation process can be carried out to improve learning
- Innovative and highly efficient 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



*The latest advances in the diagnosis and approach to stroke, trauma, neuro-oncology and infections of the nervous system, compiled in a highly efficient program that will optimize your effort with the best results"*

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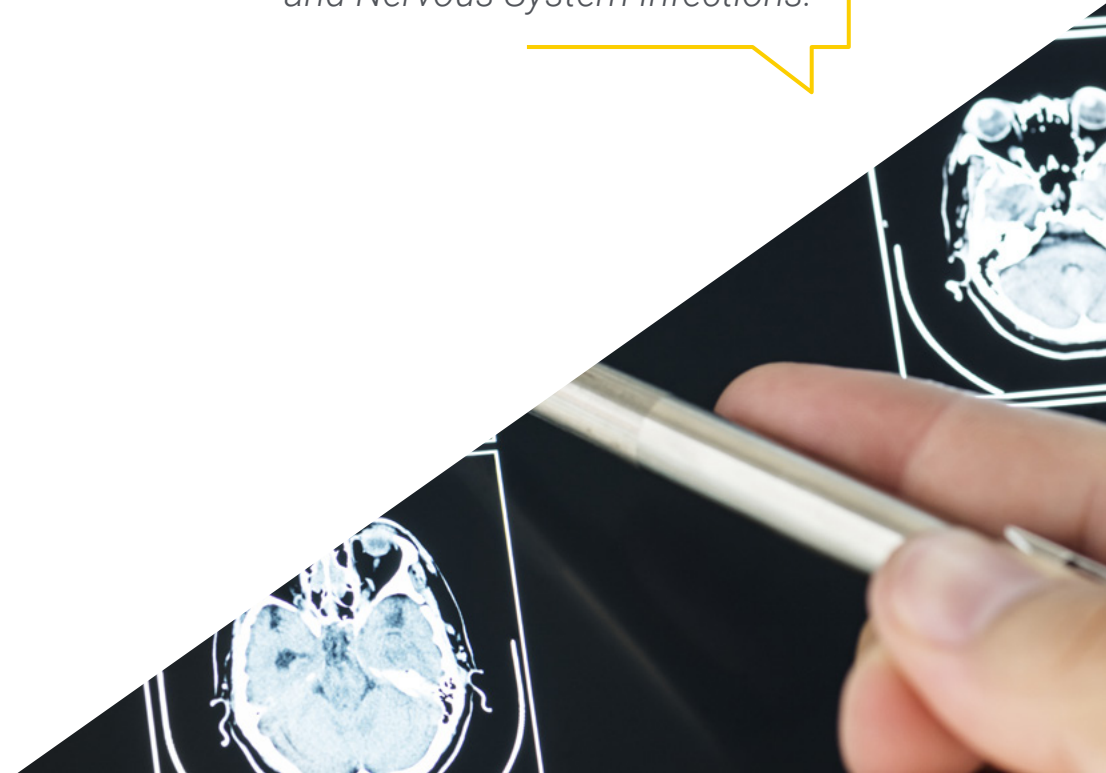
*This Postgraduate Diploma is the best investment you can make in the selection of a refresher program for two reasons: in addition to updating your knowledge in Stroke, Trauma, Neuro-oncology and Nervous System Infections, you will obtain a program from TECH Global University"*

The Development of this Course is Focused on the Practice of the Proposed Theoretical Learning Through the most effective teaching systems and proven methods imported from the most prestigious universities in the world, the student will be able to acquire new knowledge in an eminently practical way. In this way, TECH Global University strives to convert the student's efforts into real and immediate competencies.

The online system is another of the strengths of this educational proposal. With an interactive platform, which has the advantages of the latest technological developments, the most interactive digital tools are at the student's service. In this way, TECH Global University can offer students a form of learning that is totally adaptable to their needs so that they can perfectly combine this program with their personal or professional life.

*An educational program created to allow you to implement your acquired knowledge into your daily practice in an almost immediate way.*

*Take the step to get up to date on the latest developments in Stroke Disorders, Trauma, Neuro-oncology and Nervous System Infections.*



# 02

# Objectives

The objective of this Postgraduate Diploma in Stroke, Trauma, Neuro-Oncology and Nervous System Infections is to offer medical professionals a complete program to acquire neurological knowledge and skills for routine clinical practice, or to update on the latest advances in this area of intervention. A practical and effective way to keep you at the forefront of a constantly evolving profession.





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*Our goal is simple: to help you get the most complete update in the field of neurology in a Postgraduate Diploma fully compatible with your work and personal obligations"*



## General Objectives

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- ♦ Acquire the neurological skills and knowledge necessary for routine clinical practice in the non-specialist practice
- ♦ Learn about the latest updates and advances in clinical neurology



*An opportunity created for professionals who are looking for an intensive and effective program with which to take a significant step forward in the practice of their profession"*





## Specific Objectives

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### **Module 1. Diagnostic Methodology: Clinical Localization and Clinical Research Explorations in Neurology**

- ◆ Know the hierarchical organization of neuroanatomy and neurophysiology in order to facilitate clinical exploration
- ◆ Recognize the rigorousness of classical neurological examination procedures
- ◆ Recognize syndromic diagnosis as the basis for understanding neurological diseases
- ◆ Recognize the limited role of complementary examinations

### **Module 2. Ischemic and Hemorrhagic Strokes. Other Neurovascular Disorders**

- ◆ Efficiently manage prevention protocols and health programs for vascular risk factors
- ◆ Distinguish Ischemic Strokes of Cardioembolic Etiology from the rest and learn efficient prophylactic oral anticoagulation guidelines
- ◆ Recognize symptoms, be clear about what to do and above all, what not to do
- ◆ Know the limitations of each level of care and know how to activate a Stroke Code when necessary
- ◆ Perform an efficient and, above all, realistic patient follow-up and control of sequelae and cardiovascular risk factors

### **Module 3. Multiple Sclerosis and Other Inflammatory and Demyelinating Disorders of the Nervous System**

- ◆ Recognize the Spatiotemporal symptoms of MS
- ◆ Learn how to clinically diagnose MS and its evolutive forms
- ◆ Acquire skills in the recognition and treatment of relapses
- ◆ Establish help and support guidelines for MS patients
- ◆ Learn about other CNS demyelinating and dysimmune processes

### **Module 4. Infections of the Nervous System Neurological and Psychiatric Aspects of Systemic Diseases, Toxics, and External Agents**

- ◆ Recognize the most important infectious processes of the CNS and place them in their context in order to act accordingly
- ◆ Review the major neurotoxic agents to prevent nerve injury with appropriate health programs
- ◆ Review the main neurological manifestations of systemic diseases
- ◆ Know the psychiatric processes associated with neurological diseases
- ◆ Differentiate between simulation and conversion syndrome

03

# Course Management

This comprehensive program is taught by leading specialists in Neurology. All of them specialized in different fields of clinical care and practice, all of them experienced in teaching and research in different field of the nervous system and with the necessary management knowledge to provide a broad, systematic and realistic vision of the complexity of this field of Neuroscience, this group of experts will accompany the student throughout the program, putting their real and updated experience at the service of the students.





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

## International Guest Director

Doctor David Simpson is a renowned physician specializing in Neurology at Mount Sinai Hospital in New York. Here, he has served as Director of the Department of Neurology as well as Director of the Division of Neuromuscular Diseases. He has also served as Director of the Clinical Neurophysiology Laboratories and as Director of the Neuro-AIDS Program. In this way, he has shown a particular interest in innovative therapies, such as the use of botulinum toxin and the capsaicin patch, with the aim of improving the quality of life of his patients.

He has also played a leading role in numerous clinical studies, leading research that has demonstrated the efficacy of the high-concentration capsaicin patch in the treatment of Peripheral Neuropathic Pain. He has also pioneered placebo-controlled studies that have confirmed the safety and effectiveness of botulinum toxin in treating Post-Stroke Spasticity. In addition, his research on botulinum toxin injection for the treatment of various neurological conditions has been instrumental in improving the techniques applied by practitioners.

Internationally, he has chaired panels of the American Academy of Neurology, developing guidelines for the use of botulinum toxin in the treatment of Movement Disorders, Pain and Autonomic Conditions. He has also been a member of other prestigious organizations, such as the American Pain Society and the American Academy of Neuromuscular and Electrodiagnostic Medicine, among others.

In addition to his clinical work, Dr. David Simpson has published more than 300 articles and has been a member of several editorial boards. His prolific academic output has included key studies in Peripheral Neuropathies and Spasticity, topics on which he has lectured worldwide, training other specialists in advanced techniques to improve neurological treatments.



## Dr. Simpson, David

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- Director of the Department of Neurology at Mount Sinai Hospital, New York, United States
- Director of the Division of Neuromuscular Diseases at Mount Sinai Hospital.
- Director of the Clinical Neurophysiology Laboratories at Mount Sinai Hospital
- Director of the Neuro-AIDS Program at Mount Sinai Hospital
- Doctor of Medicine from the University of Buffalo
- Fellowship in Clinical Neurophysiology
- America's Top Doctors Award from Castle Connolly Medical

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*Thanks to TECH, you will be able to learn with the best professionals in the world”*

## Guest Director



### Dr. Pérez Martínez, David Andrés

- ♦ Head of the Neurology Department at the 12 de Octubre University Hospital
- ♦ Head of the Neurology and Neurophysiology Service at Hospital La Luz
- ♦ Head of the Neurology Section at the University Hospital Infanta Cristina
- ♦ Physician of the Hospital Central de la Cruz Roja San José y Santa Adela
- ♦ Director of Neurowikia.com Portal
- ♦ Director of the Brain Foundation
- ♦ Associate Professor of Neurology at the Complutense University of Madrid (UCM)
- ♦ University Expert in Evidence-Based Medicine, National University of Long Distance Education (UNED).
- ♦ University Specialist in Probability and Statistics in Medicine by the UNED
- ♦ President of the Madrid Association of Neurology
- ♦ Member of the Alzheimer Spain Foundation



## Management



### Dr. Martín Araguz, Antonio

- ♦ Doctor of Medicine and Neurological Surgery
- ♦ Principal investigator of the international clinical trials of the UCN
- ♦ Chief of Neurology Section, Central Hospital of the Defense Gómez Ulla of Madrid
- ♦ Head of the Neurology Service of the University Hospital of the Air
- ♦ Chief of the Neurology Unit of the Havana Medical Center
- ♦ Medical Lieutenant Colonel of the Superior Health Corps of the Ministry of Defense
- ♦ University Professor
- ♦ Coordinator of the History of Neurology Group of the Spanish Society of Neurology
- ♦ PhD in Medicine and Surgery from the University of Alcalá de Henares
- ♦ Graduate in Medicine and Surgery from the University of Valladolid
- ♦ Specialist via MIR in Neurology at the Ramón y Cajal Hospital
- ♦ Specialist in Family and Community Medicine by the European Community
- ♦ Expert in Headache of the Neurological Sciences Unit of Madrid
- ♦ Rotations and further studies at Rush Presbyterian Hospital in Chicago and Eckerd College in St. Petersburg and Oslo
- ♦ Postgraduate Certificate in Aerospace Medicine from the Center for Instruction in Aerospace Medicine (CIMA)
- ♦ Member of more than 20 Scientific Societies, among which stand out: Spanish Society of Neurology, Madrid Association of Neurology, Spanish Association of Medical Writers and Artists

## Professors

### Dr. Lobato Pérez, Luis

- ♦ Psychologist and Neurologist expert in Epilepsy and Addictions
- ♦ Neurology at the La Luz University Hospital of Madrid
- ♦ Specialist of the Psychological Attention Service (SAP), Academy of MIR Asturias.
- ♦ Specialist in Neurology at Quirónsalud Campo of Gibraltar Hospital
- ♦ General Neurology Consultation in Emergency Duty COVID-19, University Hospital 12 de Octubre, Madrid, Spain
- ♦ Neurology Area Specialist, Neurology and Clinical Neurophysiology Service, University Hospital La Paz of Madrid
- ♦ Neurophysiology on-call at the Epilepsy Monitoring Unit of the Emergency Department of Pandemic COVID-19 and at the Neuroimmunology Unit of the Neurology Department, Hospital Universitario La Paz, Madrid
- ♦ Epilepsy Monitorization Unit, Comprehensive Epilepsy Center (A. Kanner)
- ♦ Jackson Memorial Hospital, Miami University Hospital
- ♦ Clinical Teaching Collaborator at the Autonomous University of Madrid
- ♦ Degree in Medicine, University of Cadiz
- ♦ Degree in Psychology from the National Distance Education University
- ♦ Master's Degree in Epilepsy, University of Murcia
- ♦ Master's Degree in Neurology Update, Universidad CEU San Pablo
- ♦ Expert in Clinical Intervention in Addictions, Colegio Oficial de La Psicólogos de Madrid (COP)
- ♦ Postgraduate Diploma in Headaches, Francisco de Vitoria University
- ♦ Course on Neurology Update & Stroke Intensive Review at University of Miami
- ♦ Member of the Spanish Society of Neurology





**Dr. Toledo Alfocea, Daniel**

- ◆ Specialist in Neurology and Cerebrovascular Diseases
- ◆ Neurology Specialist, General Neurology Consultation, General Neurology Ward, Stroke Unit and Headache Consultation, University Hospital 12 de Octubre, Madrid
- ◆ Neurology specialist, general neurology ward and cognitive impairment consultation, Hospital Clínico San Carlos, Madrid
- ◆ Resident in Neurology, San Carlos Clinical in Hospital, Madrid
- ◆ Member of the organizing committee of the conference: *Health Cultures - "Professionals and patients: anthropological perspectives"*, Miguel Hernández University of Elche
- ◆ Treasurer at the XXX National Congress of Medical Students, organized by the Miguel Hernández University of Elche
- ◆ Degree in Medicine, Faculty of Medicine from the University of Miguel Hernández de Elche
- ◆ Diploma in Headaches, Francisco de Vitoria University
- ◆ First multidisciplinary meeting on headaches of the CAM, Hospital Universitario Clínico San Carlos
- ◆ Diagnostic Imaging Simulation Program in Dementia, TMC Academy
- ◆ Rotation in neurootology at the Royal National ENT Hospital and National Hospital for Neurology and Neurosurgery, London

# 04

# Structure and Content

The structure of the contents has been designed by a team of professionals, aware of the current relevance of education in order to advance in the labor market with security and competitiveness, and to practice their profession with the excellence that only the best educational program allows.



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*This Postgraduate Diploma contains the most complete and up-to-date scientific program on the market"*

### Module 1. Diagnostic Methodology: Clinical Localization and Explorations in Clinical Research in Neurology

- 1.1. General Principles of Neurological Topography and Semiology
- 1.2. Clinical Localization of the Cerebral Hemispheres. Aphasia, Apraxia, Agnosia, and Other Disorders of Higher Cortical Functions of the Human Brain
- 1.3. Posterior Fossa Syndromes: Cerebellum and Brainstem
- 1.4. Cranial Nerves and Basic Principles of Neuro-Ophthalmology
- 1.5. Spinal Cord Syndromes
- 1.6. Explorations for Clinical Neurological Research
- 1.7. CSF, Laboratory, and Genetic Studies
- 1.8. Neuroradiology. Radioisotopic Imaging
- 1.9. Clinical neurophysiology
- 1.10. Neuropathology

### Module 2. Ischemic and Hemorrhagic Strokes. Other Neurovascular Disorders

- 2.1. Ischemia and Cerebral Infarction: Syndromes in Ischemic Stroke
- 2.2. Ischemic Strokes: Neurovascular Anatomy, Classification and Clinical Assessment  
Atherosclerosis, Cardioembolic, Lacunar Syndromes, and Others
- 2.3. Vascular Dementia
- 2.4. Cerebral Hemorrhage. Hemorrhagic Strokes
- 2.5. Aneurysms, Vascular Malformations, Cerebral Amyloid Angiopathy
- 2.6. Cerebral Venous Thrombosis
- 2.7. Hypertensive and Anoxic Encephalopathies
- 2.8. Coagulation and Nervous System Disorders
- 2.9. Endovascular Therapy and Fibrinolysis Stroke Units
- 2.10. Neurorehabilitation Management of Sequelae and Control of Spasticity





### Module 3. Multiple Sclerosis and Other Inflammatory and Demyelinating Disorders of the Nervous System

- 3.1. Multiple Sclerosis (MS) and Other Demyelinating Processes: Classification
- 3.2. MS Neuropathology
- 3.3. MS Pathophysiology
- 3.4. Clinical Aspects and Evolutionary Forms of MS
- 3.5. MS Diagnostic Investigation
- 3.6. MS Treatment
- 3.7. Devic's Neuromyelitis Optica, Baló's Disease, and Schilder's Disease
- 3.8. Acute Disseminated Encephalomyelitis
- 3.9. Leukodystrophies: Lysosomal and Peroxisomal Disorders
- 3.10. Other Alterations of the White Matter

### Module 4. Infections of the Nervous System Neurological and Psychiatric Aspects of Systemic Diseases, Toxics, and External Agents

- 4.1. Infections the Nervous System
- 4.2. Effects of Radiation, Drugs, and Alcohol on the Nervous System
- 4.3. Action of Physical Agents, Neurotoxicants, and Nutritional Deficits on the Nervous System
- 4.4. Neurology of Endocrine Diseases
- 4.5. Vasculitis, Connective Tissue Diseases, and the Nervous System
- 4.6. Psychiatric Aspects of Neurological Diseases: Conversion, Behavioral, and Personality Disorders Depression and Psychosis in Neurological Practice
- 4.7. Other Neurological Disorders in Systemic Diseases
- 4.8. Inborn Errors of Metabolism of the Nervous System
- 4.9. Mitochondrial and Ion Channel Disorders of the Nervous System
- 4.10. Neuro-COVID

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 Diploma in Stroke, Trauma, Neuro-Oncology and Nervous System Infections guarantees students, in addition to the most rigorous and up-to-date education, access to a qualification 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 private qualification will allow you to obtain a **Postgraduate Diploma in Stroke, Trauma, Neuro-Oncology and Nervous System Infections** 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** private qualification 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 Stroke, Trauma, Neuro-Oncology and Nervous System Infections**

Modality: **online**

Duration: **6 months**

Accreditation: **24 ECTS**





## Postgraduate Diploma

Stroke, Trauma, Neuro-Oncology and Nervous System Infections

- » Modality: online
- » Duration: 6 months
- » Certificate: TECH Global University
- » Accreditation: 24 ECTS
- » Schedule: at your own pace
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# Postgraduate Diploma

## Stroke, Trauma, Neuro-Oncology and Nervous System Infections

