## Postgraduate Diploma Main Neurological Pathologies



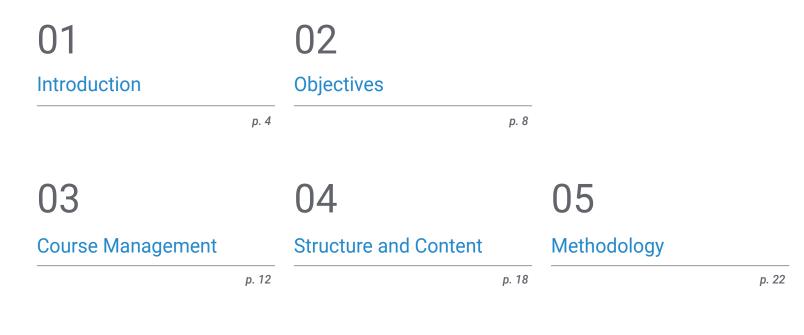


## Postgraduate Diploma Main Neurological Pathologies

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

Website: www.techtitute.com/us/medicine/postgraduate-diploma/postgraduate-diploma-main-neurological-pathologies

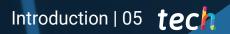
## Index



06 Certificate

# 01 Introduction

This program will guide the student so that, with the foundations of logic, reflection and from a series of essential knowledge, the student will emerge with the basic but rigorous expert performance necessary to master the clinical Neurology in the first and second levels of care in the area of primary medicine.



The main neurological pathologies, unraveled with a clinical and eminently practical focus"

## tech 06 | Introduction

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 research.

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.

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. This program will guide students so that they can take a global, balanced and scaled approach to 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 Neurology Update 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 teach with rigor, teach with precision and provide ways of improvement so that the student is able to lead realistic care and teaching programs in the specific area of their professional competencies.

This **Postgraduate Diploma in the Main Neurological Pathologies** 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



### Introduction | 07 tech



This program may be the best investment you can make in the selection of a refresher program for two reasons: in addition to updating your knowledge, you will obtain a Postgraduate Diploma in Main Neurological Pathologies"

This program is focused on practicing the proposed theoretical learning. Through the most effective teaching systems, 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 Technological 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 that has the advantages of the latest technological developments, the most interactive digital tools are at the student's service. In this way TECH Technological University can offer students a way of learning that is totally adaptable to their needs, so that they can perfectly combine this program with their personal or work life. Take the step to catch up on the latest developments in Main Neurological Pathologies.

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

# 02 **Objectives**

The objective of this Postgraduate Diploma in Main Neurological Pathologies is to offer medical professionals a complete pathway to acquire neurological knowledge, competencies and skills for routine clinical practice, or to update on the latest advances in this field. A practical and effective way to keep you at the forefront of a constantly evolving profession.

Our goal is simple: to help you get the most complete update in the Main Neurological Pathologies, in an intensive program, but totally compatible with your work and personal obligations"

## tech 10 | Objectives

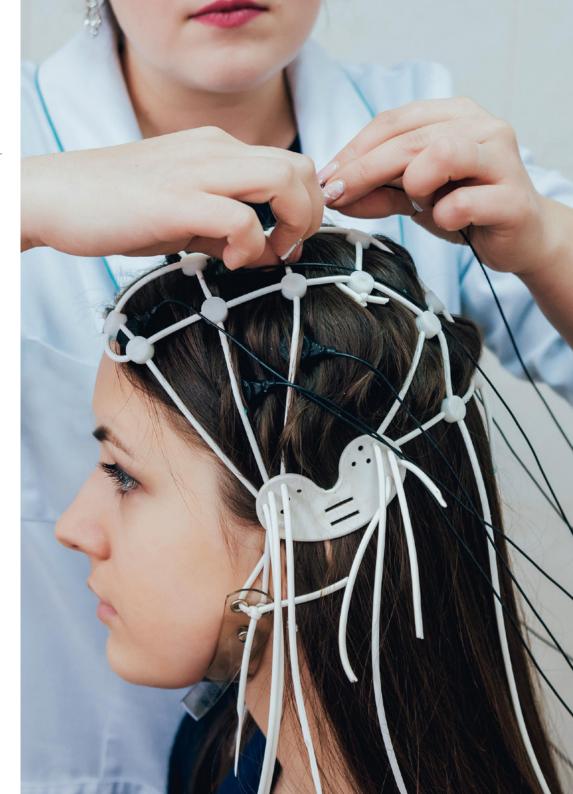


### **General Objectives**

- Acquire the Neurological Knowledge and Skills Necessary for Regular Clinical Practice in Specialized Consultation
- Learn about the latest updates and advances in clinical neurology



**66** Take the step to catch up on the latest developments in M the latest developments in Main Neurological Pathologies"





### Specific Objectives

## Module 1. Diagnostic Methodology: Clinical Localization and Explorations in Clinical Research 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. Upper and Lower Motor Neuron Diseases, Neuromuscular Plate, Peripheral Nerves, and Myopathies

- Recognize Peripheral Nerve, Neuromuscular Plate, and Muscle Diseases at a General Level
- Diagnostically Approach a Patient with Neuropathic Pain, Weakness, or Fatigability
- Diagnose Most of the Systemic Processes that Produce Peripheral Nerve and Muscle Disorders
- Know the Essential Diagnostic Techniques and Realistically Assess what can be Expected of them at this Level of Care

#### Module 3. Neurodegenerative Diseases: Alzheimer's Disease and Parkinson's Disease. Other Dementias, Parkinsonisms, and Movement Disorders. Spinocerebellar Heredoataxias

- Know the Neurodegenerative Processes, Emerging in today's Society and Which, in the Near Future, will Acquire Epidemic Proportions with Huge Associated Costs
- Have the Clinical Skills to Diagnose and Manage Alzheimer's and Parkinson's Diseases Adequately
- Know How to Differentiate Alzheimer's Disease from Other Dementias
- Know Other Hypo- or Hyperkinetic Movement Disorders Caused by Diseases of the Basal Ganglia, Especially Dystonias

#### Module 4. Headaches, Neuralgias, and Craniofacial Pain

- Learn How to Diagnose a Primary Headache
- Recognize the Alarm Symptoms of a Secondary Headache
- Protocolize a Realistic Step-by-step Treatment: Crisis Abortive and Migraine Prophylaxis
- Inform Patients about Treatments that are not Useful or Not Rigorously Proven by Evidence-Based Medicine (Fake News, Urban Legends, Fantasy, and Scientism)
- Diagnose and treat Craniofacial Neuralgias

# 03 Course Management

This comprehensive Postgraduate Diploma 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.

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

## tech 14 | Course Management

#### **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

- 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

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

6

## tech 16 | Course Management

#### **Guest Director**



#### Dr. Pérez Martinez, 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
- Assistant Physician of Neurology at the Central Hospital of the Red Cross San José and 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

### Course Management | 17 tech

#### Management



#### Dr. Martín Araguz, Antonio

- Doctor of Medicine and Neurological Surgery
- Principal Investigator of UCN's International Clinical Trials
- Head of Neurology Section, Central Hospital of La Defensa Gómez Ulla, 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
- MIR specialist in Neurology at the Ramón y Cajal Hospital
- Specialist in Family and Community Medicine by the European Community
- Postgraduate Diploma 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 Aeronautical and 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

## tech 18 | Course Management

#### Professors

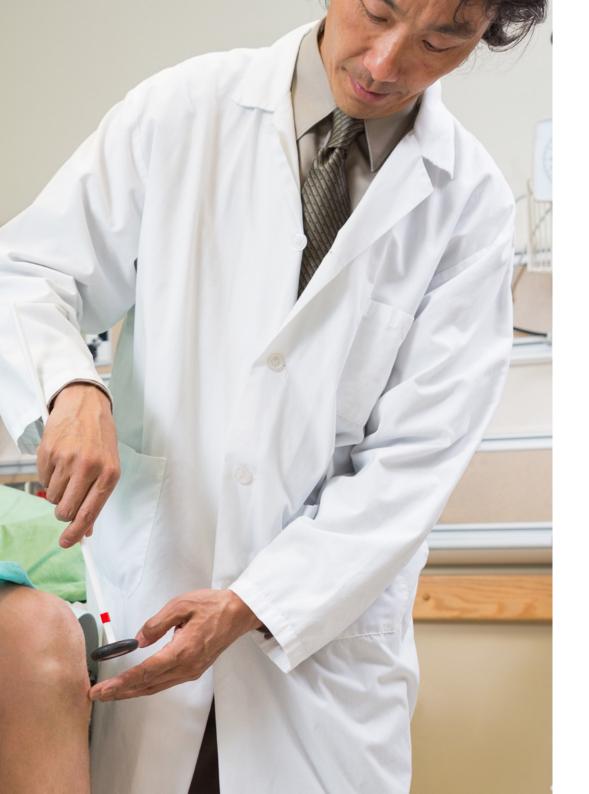
#### Dr. Ruiz López, Marta

- Specialist in Neurology
- Research Fellow, Institute of Neurogenetics, Germany
- Fellow, Toronto Western Hospital
- External Rotation Mont Sinai , Hospital, New York
- Neurologist, Son Llàtzer Hospital
- Resident Physician in Neurology at Son Espases University Hospital
- Degree in Medicine from the University of Salamanca
- Professional Master's Degree in Movement Disorders 4th Edition by the University of Murcia-Neurocampus-Viguera Editores
- Certification in Ultrasonography by the Spanish Society of Neurology

#### Dr. Moreno, Irene

- Clinical Neurologist at the Jiménez Díaz Foundation University Hospital and at the Puerta de Hierro Majadahonda University Hospital
- Neurologist and Researcher at the Puerta de Hierro Majadahonda Segovia de Arana Institute for Health Research
- Co-author of 3 books based on the study of Multiple Sclerosis
- PhD in Neurosciences Cum Laude from the Autonomous University of Madrid.
- Medical Surgeon, National University of Colombia
- Specialist in Neurology via MIR by the University Hospital Puerta de Hierro Majadahonda
- Professional Master's Degree in Neuroimmunology from the Autonomous University of Barcelona and the CEMCAT





## Course Management | 19 tech



6

## 04 Structure and Content

The structure and contents of this program has been designed by a team of professionals who are aware of the relevance of up to date education to be able to progress in the labor market with security and competitiveness, and to provide professional practice with the excellence that is only possible with the best education.

This Postgraduate Diploma in Main Neurological Pathologies has been designed to become an effective, immediate and real professional growth tool"

## tech 22 | Structure and Content

## **Module 1.** Diagnostic Methodology: Clinical Localization and Clinical Research Explorations 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.** Upper and Lower Motor Neuron Diseases, Neuromuscular Plate, Peripheral Nerves, and Myopathies

- 2.1. Pathogenesis of Upper and Lower Motor Neuron Diseases
- 2.2. Classical Forms (ALS)
- 2.3. Variant and Genetic Forms
- 2.4. Peripheral Neuropathies
- 2.5. Genetically Determined Neuropathies
- 2.6. Neuropathies in Genetically Determined Systemic Diseases
- 2.7. Genetic Myopathies
- 2.8. Acquired Myopathies
- 2.9. Myasthenia Gravis
- 2.10. Other Forms of Neuromuscular Transmission Disorders



mmmmmmmmm mmmmmmmmmm mannon mannon mannann mannon mannan mmmmmm mannanalamman mmmmmmmmmm mmmmmmmmmmmmmmmm MAAn mannin malanna MANNAMMAN mmmmmmmmmmmm



### Structure and Content | 23 tech

#### **Module 3.** Neurodegenerative Diseases: Alzheimer's Disease and Parkinson's Disease. Other Dementias, Parkinsonisms, and Movement Disorders. Spinocerebellar Heredoataxias

- 3.1. Alzheimer's Disease: Macroscopic and Microscopic Findings
- 3.2. Alzheimer's Disease: Clinical Findings
- 3.3. Research and Treatment of Degenerative Dementias
- 3.4. Dementia and Lewy Bodies
- 3.5. Frontotemporal Dementia, Lobar Atrophies, Tauopathies, and Frontotemporal Lobar Degeneration with Immunoreactive Changes
- 3.6. Parkinson's Disease
- 3.7. Other Parkinsonisms
- 3.8. Primary and Secondary Dystonia
- 3.9. Choreiform and Ballistic Syndromes
- 3.10. Spinocerebellar Heredoataxias

#### Module 4. Headaches, Neuralgias, and Craniofacial Pain

- 4.1. Classification of Headaches and Cranial Neuralgias: Primary and Secondary Headaches
- 4.2. Migraine and Subtypes
- 4.3. Tension-Type Headache
- 4.4. Trigemino-Autonomic Headaches: Cluster Headache, Paroxysmal Hemicrania, Continuous Hemicrania, SUNA, SUNCT
- 4.5. Other Primary Headaches
- 4.6. Idiopathic Trigeminal Neuralgias
- 4.7. Glossopharyngeal Neuralgia
- 4.8. Arnold's and Trochlear Neuralgias
- 4.9. Postherpetic Neuralgia
- 4.10. Secondary Neuralgias: Sinusitis, Glaucoma, Giant Cell Arteritis, Idiopathic Intracranial Hypertension, Intracranial Hypotension Syndrome, and Others

# 05 **Methodology**

This academic program offers students a different way of learning. Our methodology uses a cyclical learning approach: **Relearning.** 

This teaching system is used, for example, in the most prestigious medical schools in the world, and major publications such as the **New England Journal of Medicine** have considered it to be one of the most effective.



Discover Relearning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"

## tech 26 | Methodology

#### At TECH we use the Case Method

What should a professional do in a given situation? Throughout the program, students will face multiple simulated clinical cases, based on real patients, in which they will have to do research, establish hypotheses, and ultimately resolve the situation. There is an abundance of scientific evidence on the effectiveness of the method. Specialists learn better, faster, and more sustainably over time.

With TECH you will experience a way of learning that is shaking the foundations of traditional universities around the world.



According to Dr. Gérvas, the clinical case is the annotated presentation of a patient, or group of patients, which becomes a "case", an example or model that illustrates some peculiar clinical component, either because of its teaching power or because of its uniqueness or rarity. It is essential that the case is based on current professional life, trying to recreate the real conditions in the physician's professional practice.

66

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:

 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.



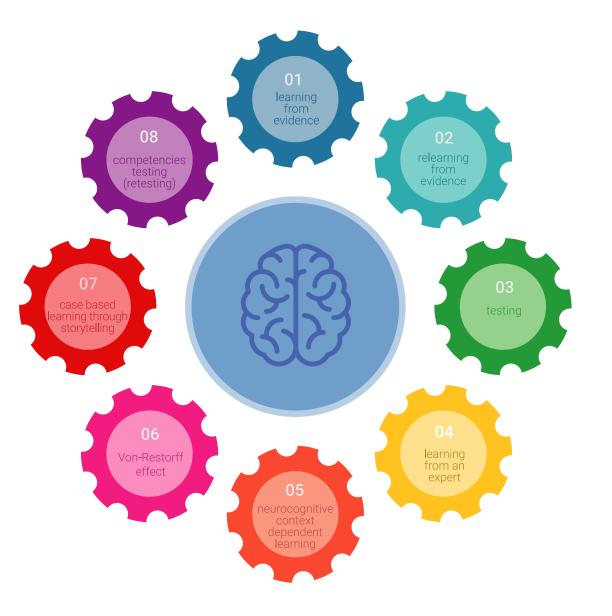
## tech 28 | Methodology

#### **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.



### Methodology | 29 tech

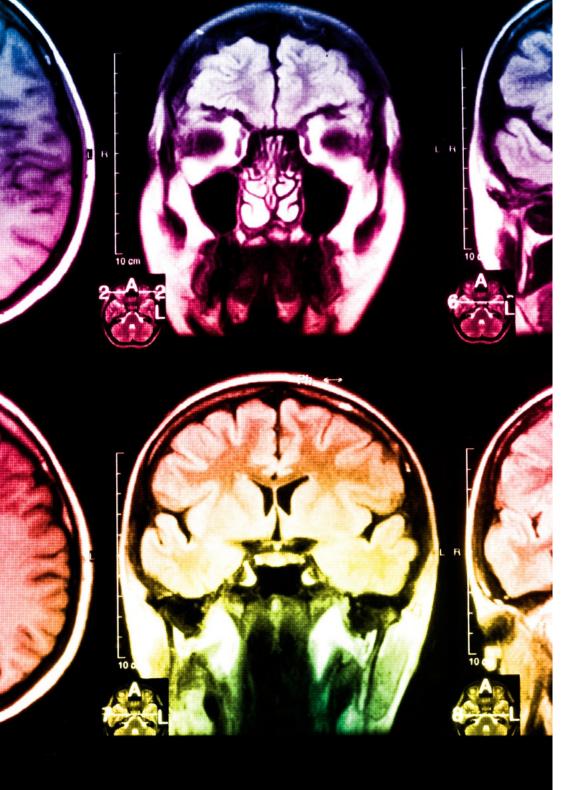
At the forefront of world teaching, the Relearning method has managed to improve the overall satisfaction levels of professionals who complete their studies, with respect to the quality indicators of the best online university (Columbia University).

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.



## tech 30 | Methodology

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.

## Methodology | 31 tech



#### **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.

20%

7%

3%

17%



#### **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 the Main Neurological Pathologies guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Diploma qualification issued by TECH Global University.



66

Successfully complete this program and receive your university qualification without having to travel or fill out laborious paperwork"

## tech 34 | Certificate

This private qualification will allow you to obtain a **Postgraduate Diploma in Main Neurological Pathologies** 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 Main Neurological Pathologies** Modality: **online** Duration: **6 months** Accreditation: **24 ECTS** 



tecn global university Postgraduate Diploma Main Neurological Pathologies » Modality: online » Duration: 6 months » Certificate: TECH Global University » Credits: 24 ECTS » Schedule: at your own pace » Exams: online

## Postgraduate Diploma Main Neurological Pathologies

