Hybrid Professional Master's Degree Update in Neurology





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Course Modality: Hybrid (Online + Clinical Internship) Duration: 12 months Certificate: TECH Technological University Teaching Hours: 1,620 h. Website: www.techtitute.com/in/medicine/hybrid-professional-master-degree/hybrid-professional-master-degree-update-neurology

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01 Introduction

Updating is a top priority for physicians who wish to keep up to date in the area of Neurology. The introduction of new and sophisticated technologies and approaches from the research field has brought a stream of new developments of great interest. The complexity of the intervention in this field requires an immersive study, showing the latest diagnostic and therapeutic procedures in the field. In this Hybrid Professional Master's Degree you will be able to acquire them, both theoretically and practically, with a highly efficient approach, which begins with an extensive update of knowledge in this field and ends with its real application in a reference hospital center. A high-level academic space that will place you in line with medical excellence. 23 / 180

Introduction | 05 tech

This comprehensive program will take you from the most up-to-date theory to intensive, quality practice in a referral hospital, empowering you for the most efficient intervention in the area of Neurology"

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tech 06 | Introduction

The irruption of Artificial Intelligence is bringing about a paradigm shift in all scientific fields, including, of course, Neurology. This research drive, which addresses neurological pathologies such as epilepsy or Alzheimer's disease, offers an unrivaled field of action for specialists in the area, who have within their reach an infinite number of advances, studies and new neurological developments.

For this reason, it is increasingly common for physicians with an interest in this field to seek the best alternatives to get up to date with the most knowledgeable specialists and reference centers. This is how this Hybrid Professional Master's Degree in Update in Neurology arises, where 10 modules of specific content have been developed from an avant-garde point of view, chosen by the expert team that makes up the teaching staff.

With the combination of two effective teaching methodologies, the specialist will advance comfortably and with the quality he or she deserves. In a first phase, you will have all the material 100% online designed under the innovative Relearning methodology and in a second phase you will enjoy 120 hours of Internship Program in a hospital center of your choice within a series of cutting-edge scenarios.

In 12 months, the specialist will delve into the main advances in the neurological field. From the diagnostic, preventive and therapeutic methods of Neurodegenerative Diseases, Neuro-oncology, Neurodevelopmental disorders, infections of the nervous system, alterations in the level of consciousness, among other relevant aspects of this area of specialization, which, upon completion of the review of the main modern medical postulates, will be immediately put into practice in the daily practice.

This **Hybrid Professional Master's Degree in Update in Neurology** contains the most complete and up-to-date scientific program on the market. The most important features include:

- Development of more than 100 clinical cases presented by professionals in this area of work and university professors with extensive experience and experience
- 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
- Comprehensive systematized action plans for major pathologies
- Presentation of practical workshops on procedures diagnosis, and treatment techniques
- Algorithm-based interactive learning system for decision making on the clinical situations presented
- Practical clinical guides on approaching different pathologies
- With a special emphasis on evidence-based medicine and research methodologies
- All this will be complemented with theoretical lessons, questions to the expert, discussion forums on controversial issues and individual reflection work
- Availability of content from any fixed or portable device with an Internet connection
- In addition, you will be able to carry out a clinical internship in one of the best hospitals in the world

Enjoy an intensive 3-week stay and acquire all the knowledge to grow personally and professionally"

Introduction | 07 tech

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Through this program you will be able to do your internship in a hospital equipped with the most modern technological means, with the best clinical methodology and alongside renowned specialists in Neurology"

In this Professional Master's Degree, of a professionalizing nature and blended learning modality, the program is aimed at updating medical professionals in the field of Neurology. The contents are based on the latest scientific evidence, and oriented in a didactic way to integrate theoretical knowledge into practice, and the theoretical-practical elements will facilitate the updating of knowledge and will allow decision making in patient management.

Thanks to its multimedia content developed with the latest educational technology, they will allow the professional a situated and contextual learning, that is to say, a simulated environment that will provide an immersive learning programmed to train in real situations. This program is designed around Problem-Based Learning, whereby the professional must try to solve the different professional practice situations that arise throughout the program. This will be done with the help of an innovative interactive video system developed by renowned experts with extensive teaching experience.

This Hybrid Professional Master's Degree allows you to practice first in simulated environments, which provide an immersive learning experience, and then in the real hospital environment, testing everything you have studied.

Update your knowledge and incorporate the new ways of acting in Neurology from the hand of the most versed experts.

02 Why Study this Hybrid Professional Master's Degree?

The most recent expert analyses of the impact of neurological diseases on the world's population reflect the challenge that their care represents for patients, their environment and the State. For this reason, more and more physicians are interested in updating their knowledge in this area and applying the most advanced techniques in the treatment of affected persons. In response to this need, TECH has developed this innovative program that combines two efficient study methodologies so that the professional is updated on the latest findings regarding these pathologies, along with a practical stay in a prestigious clinical center. In this way, the student will obtain a complete vision of the most current panorama in Neurology, guided at all times by authentic experts in the field.

Why Study this Hybrid Professional Master's Degree? | 09 tech

You will learn in depth the most updated basic medical-surgical treatments in Neurology"

tech 10 | Why Study this Hybrid Professional Master's Degree?

1. Updating from the latest technology available

Neurology has been revolutionized in recent years. Many advances have been made in the early diagnosis and treatment of neurological diseases. For this reason, TECH has condensed in this program the most relevant aspects, taking into account the most advanced methodology and technology for the development of this academic space, as well as a cutting-edge clinical environment for the realization of the practical part.

2. Gaining In-Depth Knowledge from the Experience of Top Specialists

The large team of professionals that will accompany the specialist throughout the entire practical period is a first-rate guarantee and an unprecedented guarantee of updating. With a specifically designated tutor, the student will be able to see real patients in a state-of-the-art environment, which will allow them to incorporate the most effective procedures and approaches in Neurology into their daily practice.

3. Entering First-Class Clinical Environments

For the development of the practical part of this program, TECH has established an important agreement with national and international reference hospitals that provide maximum collaboration for the development of this academic proposal. Thus, the professional will be part of a team of experts in the area of Update in Neurology for 3 weeks, always based on quality and innovation.





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Why Study this Hybrid Professional Master's Degree? | 11 tech

4. Combining the Best Theory with State-of-the-Art Practice

TECH offers a new learning model, which combines 100% online theory with a 100% practical part, allowing you to get in front of state-of-the-art procedures in the area of Neurology and, best of all, always under the guidance of an assigned tutor who is an expert in the field and a team of experienced professionals who offer their vast experience.

5. Expanding the Boundaries of Knowledge

This unique opportunity to expand your knowledge in Neurology will allow you to carry out an Internship Program not only in national but also international centers. In this way, the specialist will be able to expand their frontiers and keep up to date with the best professionals, who practice in first class hospitals and in different continents.

66 You will have full practical immersion at the center of your choice"

03 **Objectives**

The objective of this program is to achieve that the professional updates the diagnostic and therapeutic procedures in Neurology in a complete way. For this, the theoretical learning of the subject will be provided, with the most current and interesting contents in this sector, to finish with a hospital stay in which you will carry out the practical learning, with the help of recognized professionals in a hospital center of the highest scientific quality and technological innovation.

This program is an exceptional opportunity to be updated in the field of Neurology in a practical way and totally oriented to the professional work of the specialist"

tech 14 | Objectives



General Objective

• Neurological diseases have a large number of origins and their approach has an enormous complexity, so the specialist needs to have the latest techniques to be able to manage this type of pathologies with maximum efficiency. Therefore, this Hybrid Professional Master's Degree offers you all the advances in this area, so that upon completion of the program you will be up to date with the most innovative procedures in the discipline



The latest developments in Neurology intervention clearly and precisely presented in this Hybrid Professional Master's Degree that will complete your capacity with the most updated knowledge"



Objectives | 15 tech







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 Examination
- 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 alterations
- Knowledge of the essential diagnostic techniques and a realistic assessment of what can be expected at this level of care

tech 16 | Objectives

Module 3. 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
- During Stroke: Recognize Symptoms, Be Clear about what to do and, above all, what NOT to do. In Addition, Know the Limitations of Each Level of Care and Know How to Activate a Stroke Code when Necessary
- Perform efficient and, above all, realistic patient follow-up After the Stroke and, control of sequelae and risk factors

Module 4. 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
- 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 5. Trauma of the Nervous System. Neuro-oncology: Tumors and Paraneoplastic and Cerebellar Syndromes. Neurocutaneous Syndromes and Neurodevelopmental Disorders

- Make a Correct Neurological Assessment of Polytraumatized Patients
- Recognize conditions requiring urgent neurosurgery
- Learn to Diagnose Malformations and Fundamental Neurodevelopmental Disorders
- Acquire Training and Basic Skills in the Management of Neuro-oncological Patients

Module 6. 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

Objectives | 17 tech

Module 7. 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

Module 8. Sleep Disorders. Alterations in the Level of Consciousness

- Learn that Sleep Disorders are Multidisciplinary in Nature and Require a Cross-cutting Approach
- Learn that Insomnia is not Treated with Sleeping Pills Alone and that their Use is Often a Problem in Itself
- Learn that Snoring is a Problem that must be Carefully Assessed to rule out OSAHS
- Learn that Stupor and Coma are States in which the Brain is Highly Vulnerable

Module 9. Epilepsies and Epileptic Seizures

- Recognize what is and what is not Epilepsy
- Distinguish between Idiopathic, Cryptogenic, or Secondary Seizures
- Diagnostic Approach to Seizures
- Treatment of Most Seizures: "Treating Epilepsy" is not Equivalent to "Total Seizure Control"
- Knowing How to Refer Refractory Seizures After a Reasonable Investigation of the Real Cause of Refractoriness

Module 10. 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 to 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

04 **Skills**

After overcoming the objectives set out in this Hybrid Professional Master's Degree in Update in Neurology, the specialist will be up to date with the most recent scientific postulates, daily clinical findings and techniques adapted to new advances in specialized medical technology to address patients with Neurological Diseases and other associated disorders. A comprehensive approach, in a high-level program, that will allow you to make a difference.

Skills | 19 tech

It ensures the conversion of knowledge into real skills in the praxis of Neurology, through this program that combines theoretical study with the practical materialization of what has been learned"

tech 20 | Skills



General Skills

- Responding to care needs in Neurological Medicine
- Problem solving in inpatient or outpatient settings
- Integrate knowledge and face the complexity of formulating diagnoses based on assessment by functional patterns
- Plan their care and correctly assess effective compliance with care plans through nursing taxonomies of outcome criteria and medical interventions
- Encourage user and family participation in their care program to achieve the best health outcomes

666 The specialist will get up to date with the latest findings in Neurology medicine and put it into practice immediately"





Specific Skills

- Recognize the symptoms that appear throughout the disease process and anticipate possible complications that may occur
- In-depth identification of the most up-to-date basic medical-surgical treatments
- Apply the necessary diagnostic methodology and explorations in Neurology
- Intervene in cases of stroke and other neurovascular disorders
- Recognizing and addressing sleep disorders
- Intervene in dementia and movement disorders
- Act in cases of nervous system trauma and neurodevelopmental disorders
- Recognize demyelinating disorders
- Act in neurological affectations caused by external agents

05 Course Management

Thanks to TECH's avant-garde approach, this program has been developed by the most experienced experts with an updated and active profile in the clinical sector of Neurology and the most effective treatments. This faculty has poured all their experience and new medical findings from their day-to-day work into each of the sections that make up the broad academic itinerary. This is how we have obtained a material of the highest quality and topicality in Neurology.

Leading professionals in the field of Neurology will provide you with the most relevant technological and scientific advances in this field"

tech 24 | Course Management

Guest Director



Dr. Pérez Martínez, David Andrés

- Head of the Neurology Department of 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 Central Hospital of the Red Cross San Jose and Santa Adela
- Director of the Neurowikia.com portal
- Director of the Brain Foundation
- Associate Professor in Neurology at the Complutense University of Madrid (UCM)
- Postgraduate Diploma in the evidence by the National University of 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 Foundation Spain

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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
- Graduated in Aeronautical and Aerospace Medicine by 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

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Professors

Dr. Ruiz López, Marta

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

Dr. Moreno, Irene

- Clinical Neurologist at the University Hospital Fundación Jiménez Díaz and at the University Hospital Puerta de Hierro Majadahonda
- Neurologist and Researcher at the Puerta de Hierro Majadahonda Institute for Health Research Segovia de Arana
- Co-author of 3 books based on the study of Multiple Sclerosis
- Dr. in Medicine and Surgery "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
- Master's Degree in Neuro-immunology from the Autonomous University Madrid and the CEMCAT

Dr. Puente Muñoz, Ana Isabel

- Associate Chief of the Clinical Neurophysiology Service at Hospital La Luz
- Head of the Clinical Neurophysiology Unit of the Central Hospital of the Red Cross San Jose and Santa Adela
- Coordinator of the Sleep and Electroencephalography Unit at Hospital Quirónsalud Sur
- Coordinator of the Sleep Unit at Hospital Postgraduate Certificate Sanitas La Moraleja
- Resident Internist in Clinical Neurophysiology at San Carlos Clinical Hospital
- Author and co-author of scientific articles and books related to her specialty
- Speaker at numerous Clinical Neurophysiology Congresses

Dr. De la Morena Vicente, María Asunción

- Assistant Physician, from Neurology Specialist, University Hospital Infanta Cristina, Madrid
- Area Specialist in Neurology at the San Carlos Clinical Hospital, Madrid
- Specialist in Neurology
- Research Project Manager, Fundación Investigación in Biomedical Hospital Clínico San Carlos, Madrid
- Specialist in Neurology, private professional activity at Center for Neurological Studies, Hospitales Sanitas, ICE Medical Center and Hospital Sanitas La Moraleja
- Collaborator in Practical Teaching in the Department of Medicine of the Complutense University of Madrid (UCM)
- Degree in Medicine and Surgery from the Universidad Autónoma of Madrid (UAM)
- PhD Courses in Neurosciences from the Faculty of Medicine of the UCM
- Specialty in Neurology via MIR at the Clinical Hospital San Carlos, Madrid

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- Specific Training Program in Epilepsy of the Spanish Society of Neurology, carried out at the Epilepsy Unit of the Hospital Clinic of Barcelona
- Member of: Spanish Neurology Society, Spanish Epilepsy Society, Madrid Neurology Association, Postgraduate Certificate Infanta Cristina Hospital Research Committee, of Innovation Committee, Puerta de Hierro Hospital Research Institute. Majadahonda

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, from the 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 Miguel Hernández University of Elche
- Expert in Headaches by the Francisco de Vitoria University
- First Multidisciplinary Meeting on Headaches of the CAM, University Hospital San Carlos Clinical Hospital
- Diagnostic Imaging Simulation Program in Dementia, TMC Academy
- Rotation in Neuro-otology at the Royal National ENT Hospital and National Hospital for Neurology and Neurosurgery, London

Dr. Luis Lobato Pérez

- Psychologist and Neurologist expert in Epilepsy and Addictions
- Neurology at the La Luz University Hospital, Madrid
- Specialist of the Psychological Attention Service (SAP), Academy of MIR Asturias
- Specialty in Neurology at the Puerta de Gibraltar University Hospital
- General Neurology Consultation, 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, University Hospital 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 from the University of Cadiz
- Degree in Psychology, National Distance University
- Master's Degree in Epilepsy, University of Murcia
- Master's Degree in Update in Neurology, Universidad CEU San Pablo
- Expert in Clinical Intervention in Addictions, Official College of Psychologists of Madrid (COP)
- Postgraduate Diploma in Headaches, Francisco de Vitoria University
- Update in Neurology & Stroke Intensive Review Program by the University of Miami
- Member of the Spanish Society of Neurology

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Dr. Ruiz Ezquerro, Juan José

- Chief of Neurology Service at the from Zamora Health Care Complex
- Editor of the journal Neurosciences and History, official publication of the Historical Archive Museum of the Spanish Society of Neurology
- Chief of Neurology Service at the Zamora Health Care Complex
- Professor of the Master's Degree in Epilepsy, University of Murcia
- Professor of the Master's Degree in Clinical Neuropsychology University of León- IAEU
- Author of several publications, books and chapters, mainly on Clinical Neurology and Neurohistory, as well as Art History, Traditional Culture, Archaeology and Ethnography
- SEN History of Neurology Award
- Degree in Medicine from the University of Zaragoza
- Neurology Specialist- MIR and Clinical University Hospital of Salamanca, Spain

Dr. Domínguez Salgado, Manuel

- Head of the Epilepsy Unit and Cognitive Impairment Unit, Central Defence Hospital Gómez Ulla, Madrid
- Area Specialist in Neurology, Central Defence Hospital Gómez Ulla, Madrid
- Head of Neurology, Hospital Vithas Madrid La Milagrosa
- Associate Professor of from Neurology University of Alcalá de Henares
- Professor of Neurology University of Castilla-La Mancha
- Visiting Professor National School of Occupational Medicine, CEU San Pablo University
- Regular collaborator in several patient associations
- Author of several national and international books and book chapters

- Author of articles in national and international journals of impact
- Lecturer in national and international conferences
- Doctor in Medicine, of Neurosciences, the Complutense University of Madrid
- Specialist in Neurology and Clinical Neurophysiology
- Magister in Pediatric Neurology
- Member of: American Academy of Neurology , European Academy of Neurology Spanish Society of Neuropediatrics, Research Ethics Committee of the Central Defense Hospital Gómez Ulla

Dr. Almendral Doncel, Raquel

- Neuropediatrician, Hospital Virgen de la Salud, Toledo
- Neuropediatrician at the Hospital General de Catalunya
- Specialist in Family and Community Medicine at the General Hospital Postgraduate Certificate of Albacete
- Specialist in Pediatrics and its specific areas, San Juan de Alicante University Hospital
- Author of the book El triángulo del aprendizaje by Alexandria Editors
- PhD in Medicine and Surgery from the Autonomous University of Madrid
- Degree in Medicine and Surgery from the Complutense University of Madrid
- International Master in Psychobiology and Cognitive Neuroscience, Autonomous University of Barcelona
- Master in Pediatric Neurology and Neurodevelopment, CEU Cardenal Herrera University

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- Expert in Advances in Developmental, Learning and Neuropsychiatric Disorders, CEU Cardenal Herrera University
- Expert in Infectious Diseases of the Nervous System and Neurological Emergencies, CEU Cardenal Herrera University
- Postgraduate Diploma in Advances in Prenatal and Neonatal Neurology and Metabolic Errors, CEU Cardenal Herrera University
- Postgraduate Diploma in Advances in Motor and Paroxysmal Disorders in Pediatric Neurology, CEU Cardenal Herrera University
- Postgraduate Diploma in Malformations, Chromosomal Alterations and Neurosurgical Pathology in Pediatric Neurology from CEU Cardenal Herrera University
- Member of: Spanish Society of Pediatric Neurology, Association of Neuropediatrics of Madrid and Central Zone

Dr. Fe Marqués, Antonio

- Medical Internist Specialist in Infectious Diseases
- Chief Operational Military Health, Central Hospital of Defense Gómez Ulla
- Medical Specialist in Internal Medicine and Infectious Diseases, Central Administration
- Head of Area, General Sub-Inspection of Health and Expert Support, IGESAN
- Head of High Level Isolation Unit, Central Defense Hospital Gómez Ulla
- Head of CBRN-Infectious Diseases Unit, Central Defense Hospital Gómez Ulla
- Specialist in Internal Medicine, Central Defence Hospital Gómez Ulla
- Doctor, Department of Medicine and Medical Specialties, University of Alcalá, Spain

- Corresponding Academic, Royal Academy of Medicine of the Balearic Islands
- Full Professor, Military School of Health
- University Professor
- PhD in Medicine from the Complutense University of Madrid
- Degree in Medicine from the Autonomous University Madrid
- Resident of the Internal Medicine Specialty at the Complutense University of Madrid



Thanks to TECH's state-of-the-art methodology and technology, you will be able to take on a broad academic itinerary with the greatest possible flexibility and convenience"

06 Educational Plan

This program is a unique and comprehensive update, covering both theory and state-of-the-art neurological practice in a single program. All theoretical contents can be downloaded and consulted from any device with an Internet connection, thus providing the medical professional with a future reference guide even after completing the program. Therefore, the convenience of choosing where, how and when to study gives you the freedom to organize your current schedule without hassle.



All theoretical contents can be downloaded and consulted from any device with an Internet connection, so you choose how, when and where to update"

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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. 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

Module 3. Ischemic and Hemorrhagic Strokes. Other Neurovascular Disorders

- 3.1. Ischemia and Cerebral Infarction: Syndromes in Ischemic Stroke
- 3.2. Ischemic Strokes: Neurovascular Anatomy, Classification and Clinical Assessment Atherosclerosis, Cardioembolic, Lacunar Syndromes, and Others
- 3.3. Vascular Dementia
- 3.4. Cerebral Hemorrhage. Hemorrhagic Strokes
- 3.5. Aneurysms, Vascular Malformations, Cerebral Amyloid Angiopathy
- 3.6. Cerebral Venous Thrombosis
- 3.7. Hypertensive and Anoxic Encephalopathies
- 3.8. Coagulation and Nervous System Disorders
- 3.9. Endovascular Therapy and Fibrinolysis Stroke Units
- 3.10. Neurorehabilitation Management of Sequelae and Control of Spasticity

Module 4. Neurodegenerative Diseases: Alzheimer's Disease and Parkinson's Disease. Other Dementias, Parkinsonisms, and Movement Disorders. Spinocerebellar Heredoataxias

- 4.1. Alzheimer's Disease: Macroscopic and Microscopic Findings
- 4.2. Alzheimer's Disease: Clinical Findings
- 4.3. Research and Treatment of Degenerative Dementias
- 4.4. Dementia and Lewy Bodies
- 4.5. Frontotemporal Dementia, Lobar Atrophies, Tauopathies, and Frontotemporal Lobar Degeneration with Immunoreactive Changes
- 4.6. Parkinson's Disease
- 4.7. Other Parkinsonisms
- 4.8. Primary and Secondary Dystonia
- 4.9. Choreic and Ballistic Syndromes
- 4.10. Spinocerebellar Heredoataxias

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Module 5. Trauma of the Nervous System. Neuro-oncology: Tumors and Paraneoplastic and Cerebellar Syndromes. Neurocutaneous Syndromes and Neurodevelopmental Disorders

- 5.1. Neurotraumatology: Brain and Spinal Trauma
- 5.2. Intracranial Tumors
- 5.3. Spinal Tumors
- 5.4. Metastases. Paraneoplastic and Cerebellar Syndromes
- 5.5. Malformations and Familial Syndromes: Neural Tube Defects, Spina Bifida, Chiari, DandyWalker, and Lhermitte-Duclos Malformations. Agenesis of the Corpus Callosum and Septum Pellucidum
- 5.6. Neuronal Migration Disorders, Heterotopias, Arachnoid Cysts, Porencephaly, and Hydrocephalias
- 5.7. Neurocutaneous Syndromes
- 5.8. Von Recklinghausen's Neurofibromatosis
- 5.9. Bourneville's Disease. Other Neurocutaneous Syndromes and Derivatives
- 5.10. Other Neurodevelopment Disorders

Module 6. Multiple Sclerosis and Other Inflammatory and Demyelinating Disorders of the Nervous System

- 6.1. Multiple Sclerosis (MS) and Other Demyelinating Processes: Classification
- 6.2. MS Neuropathology
- 6.3. MS Pathophysiology
- 6.4. Clinical Aspects and Evolutionary Forms of MS
- 6.5. MS Diagnostic Investigation
- 6.6. EM Treatment
- 6.7. Devic's Neuromyelitis Optica, Baló's Disease, and Schilder's Disease
- 6.8. Acute Disseminated Encephalomyelitis
- 6.9. Leukodystrophies: Lysosomal and Peroxisomal Disorders
- 6.10. Other Alterations of the White Matter

Module 7. Headaches, Neuralgias, and Craniofacial Pain

- 7.1. Classification of Headaches and Cranial Neuralgias: Primary and Secondary Headaches
- 7.2. Migraine and Subtypes
- 7.3. Tension-Type Headache
- 7.4. Trigemino-Autonomic Headaches (*Cluster Headache*), Paroxysmal Hemicrania, Continuous Hemicrania, SUNA, and SUNCT
- 7.5. Other Primary Headaches
- 7.6. Idiopathic Trigeminal Neuralgia
- 7.7. Glossopharyngeal Neuralgia
- 7.8. Arnold's and Trochlear Neuralgia
- 7.9. Postherpetic Neuralgia
- 7.10. Secondary Neuralgias: Sinusitis, Glaucoma, Giant Cell Arteritis, Idiopathic Intracranial Hypertension, Intracranial Hypotension Syndrome, and Others

Module 8. Sleep Disorders. Alterations in the Level of Consciousness

- 8.1. Sleep Medicine
- 8.2. Insomnia
- 8.3. Sleep-related Respiratory Disturbances and their Neurological Repercussions
- 8.4. Hypersomnias
- 8.5. Circadian Rhythm Disturbances
- 8.6. Parasomnias and Other Sleep Disorders
- 8.7. Abnormal Movements Related to Sleep. Bruxism
- 8.8. Delirium, Acute Confusional Syndrome
- 8.9. Stupor and Coma
- 8.10. Syncope

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Module 9. Epilepsies and Epileptic Seizures

- 9.1. Definition and Classification. Types of Seizures and Types of Epilepsy
- 9.2. Partial Seizures (Focal or Local)
- 9.3. Generalized Seizures
- 9.4. Unclassifiable Crises Pseudo-Crisis
- 9.5. Etiology of Epilepsy
- 9.6. Epilepsy Investigation (I): EEG
- 9.7. Epilepsy Investigation (III): M-EEG, VideoEEG, Invasive EEG
- 9.8. Epilepsy Investigation (III): SPECT, PET, MRI, and Specific Neuroimaging Protocols for Epilepsy Diagnosis
- 9.9. Medical Treatment. Epilepsy Surgery
- 9.10. Status Epilepticus

Module 10. Infections of the Nervous System Neurological and Psychiatric Aspects of Systemic Diseases, Toxics, and External Agents

- 10.1. Infections the Nervous System
- 10.2. Effects of Radiation, Drugs, and Alcohol on the Nervous System
- 10.3. Action of Physical Agents, Neurotoxicants, and Nutritional Deficits on the Nervous System
- 10.4. Neurology of Endocrine Diseases
- 10.5. Vasculitis, Connective Tissue Diseases, and the Nervous System
- 10.6. Psychiatric Aspects of Neurological Diseases: Conversion, Behavioral, and Personality Disorders Depression and Psychosis in Neurological Practice
- 10.7. Other Neurological Disorders in Systemic Diseases
- 10.8. Inborn Errors of Metabolism of the Nervous System
- 10.9. Mitochondrial and Ion Channel Disorders of the Nervous System
- 10.10. Neuro-COVID





Educational Plan 35 tech

A unique, key and decisive academic experience to boost your professional development that will place you at the forefront of the professional world"

07 Clinical Internship

After finishing the theoretical period, the specialist will be able to be involved with a Neurology team for 3 full weeks of practical stay. In this way you will be able to see in situ all the advances, developments and work methodology reviewed in the previous phase, having an indispensable practical perspective to consolidate all this knowledge.

Do your clinical internship in one of the best national or international reference hospitals"

tech 38 | Clinical Internship

The Internship Program consists of a 3-week clinical internship, Monday through Friday, with 8 consecutive hours of practice with an attending specialist. This stay will allow you to see real patients alongside a team of reference professionals applying the most innovative diagnostic procedures and planning the latest generation of therapy for each pathology.

In this completely practical proposal, the activities are aimed at developing and perfecting the competencies necessary for the provision of health care in areas and conditions that require a high level of qualification, and which are oriented towards specific training for the exercise of the activity, in an environment of patient safety and high professional performance.

The practical part will be carried out with the active participation of the student performing the activities and procedures of each area of competence (learning to learn and learning to do), with the accompaniment and guidance of the professors and other fellow trainees to facilitate teamwork and multidisciplinary integration as transversal competencies for clinical practice (learning to be and learning to relate).

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Thanks to this innovative method, the professional will implement in his daily clinical practice all the aspects reflected in the most recent clinical research in Neurology"



Clinical Internship | 39 tech

The procedures described below will form the basis of the practical part of the training, and their completion is subject to both the suitability of the patients and the availability of the center and its workload, with the proposed activities being as follows:

Module	Practical Activity				
	Identify the anatomical location of the lesion(s) producing symptoms that produce the symptoms				
Approach to the	Identify the pathophysiology involved				
neurological patient	Perform specific tests to detect cranial nerve conditions involving the patient's 5 senses				
	Selecting the appropriate specific tests				
	Review the pathophysiology of orthostatic hypotension				
Diagnostic	Generate differential diagnoses: syndromic diagnosis, pathological diagnosis, etymological diagnosis and functional diagnosis				
methodology: clinical	Indicate appropriate imaging and common diagnostic tests such as CT scans				
localization and	Delve into the general principles of topography and neurological semiology				
explorations in clinical	Diagnose and treat neuromuscular transmission disorders				
research in Neurology	Perform diagnosis and treatment of ischemic and hemorrhagic stroke, as well as other neurovascular disorders				
	Diagnosing and Treating Dementia and Lewy Bodies				
Approach to patients with alterations in the	Measure the patient's orientation in time, space and person, attention and concentration, memory, verbal and mathematical skills, judgment and reasoning				
level of consciousness	Perform mental status examination according to specific methodologies				
	Evaluate praxia and spatial perception				
	Indicate relaxation techniques, exercise, anxiolytic drugs or paracetamol to patients with tension headaches				
Therapeutic methods for the patient	Prescribe the appropriate medications for each case presented with visible neurological symptoms				
with neurological pathologies	Incorporate neurorehabilitation into the treatment of the adult patient o Neurological Physiotherapy				
	Indicate preventive methods in possible neurological patients with neuropsychological rehabilitation therapies, through cognitive stimulation techniques				



tech 40 | Clinical Internship

Civil Liability Insurance

This institution's main concern is to guarantee the safety of the trainees and other collaborating agents involved in the internship process at the company. Among the measures dedicated to achieve this is the response to any incident that may occur during the entire teaching-learning process.

To this end, this educational entity undertakes to take out civil liability insurance to cover any eventuality that may arise during the stay at the internship center.

This liability policy for interns will have broad coverage and will be taken out prior to the start of the practical training period. In this way, the professional will not have to worry in case he/she has to face an unexpected situation and will be covered until the end of the practical program at the center.



General Conditions of the Internship Program

The general terms and conditions of the internship agreement for the program are as follows:

1. TUTOR: During the Hybrid Professional Master's Degree, students will be assigned with two tutors who will accompany them throughout the process, answering any doubts and questions that may arise. On the one hand, there will be a professional tutor belonging to the internship center who will have the purpose of guiding and supporting the student at all times. On the other hand, they will also be assigned with an academic tutor whose mission will be to coordinate and help the students during the whole process, solving doubts and facilitating everything they may need. In this way, the student will be accompanied and will be able to discuss any doubts that may arise, both clinical and academic.

2. DURATION: The internship program will have a duration of three continuous weeks, in 8-hour days, 5 days a week. The days of attendance and the schedule will be the responsibility of the center and the professional will be informed well in advance so that they can make the appropriate arrangements.

3. ABSENCE: If the students does not show up on the start date of the Hybrid Professional Master's Degree, they will lose the right to it, without the possibility of reimbursement or change of dates. Absence for more than two days from the internship, without justification or a medical reason, will result in the professional's withdrawal from the internship, therefore, automatic termination of the internship. Any problems that may arise during the course of the internship must be urgently reported to the academic tutor. **4. CERTIFICATION:** Professionals who pass the Hybrid Professional Master's Degree will receive a certificate accrediting their stay at the center.

5. EMPLOYMENT RELATIONSHIP: The Hybrid Professional Master's Degree shall not constitute an employment relationship of any kind.

6. PRIOR EDUCATION: Some centers may require a certificate of prior education for the Hybrid Professional Master's Degree. In these cases, it will be necessary to submit it to the TECH internship department so that the assignment of the chosen center can be confirmed.

7. DOES NOT INCLUDE: The Hybrid Professional Master's Degree will not include any element not described in the present conditions. Therefore, it does not include accommodation, transportation to the city where the internship takes place, visas or any other items not listed.

However, students may consult with their academic tutor for any questions or recommendations in this regard. The academic tutor will provide the student with all the necessary information to facilitate the procedures in any case.

08 Where Can I Do the Clinical Internship?

This Hybrid Professional Master's Degree program includes in its itinerary a practical stay in a prestigious hospital center where the student will put into practice everything learned in prevention, diagnosis and treatment of Neurological Diseases. For this purpose, TECH has established an important agreement with leading hospitals in different locations, from which the professional can choose the one that best suits his preferences.

Where Can I Do the Clinical Internship? | 43 tech

Complete your theoretical update with the best practical stay. Only in this way will you achieve success in your daily practice"

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tech 44 | Where Can I Do the Clinical Internship?

The student will be able to take the practical part of this Hybrid Professional Master's Degree in the following centers:



Where Can I Do the Clinical Internship? | 45 tech



tech 46 | Where Can I Do the Clinical Internship?







Where Can I Do the Clinical Internship? | 47 tech

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Take advantage of this opportunity to surround yourself with expert professionals and learn from their work methodology"

09 **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 50 | 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.

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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:

 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.
- 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 52 | 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 | 53 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 54 | 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.

20%

15%

3%

15%

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".

Methodology | 55 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.

10 **Certificate**

The Hybrid Professional Master's Degree in Update in Neurology guarantees students, in addition to the most rigorous and up-to-date education, access to a Hybrid Professional Master's Degree issued by TECH Technological University.



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

tech 58 | Certificate

This **Hybrid Professional Master's Degree in Update in Neurology** contains the most complete and up-to-date program on the professional and educational field.

After the student has passed the assessments, they will receive their corresponding Hybrid Professional Master's Degree diploma issued by TECH Technological University via tracked delivery*. In addition to the certificate, students will be able to obtain an academic transcript, as well as a certificate outlining the contents of the program. In order to do so, students should contact their academic advisor, who will provide them with all the necessary information.

Title: Hybrid Professional Master's Degree in Update in Neurology Course Modality: Hybrid (Online + Clinical Internship) Duration: 12 months Certificate: TECH Technological University Teaching Hours: 1,620 h.



*Apostille Convention. In the event that the student wishes to have their paper certificate issued with an apostille, TECH EDUCATION will make the necessary arrangements to obtain it, at an additional cost.

technological university Hybrid Professional Master's Degree Update in Neurology Course Modality: Hybrid (Online + Clinical Internship) Duration: 12 months Certificate: TECH Technological University Teaching Hours: 1,620 h.

Hybrid Professional Master's Degree Update in Neurology

