

Postgraduate Certificate Nuclear and Infranuclear Ocular Motility Disorders



Postgraduate Certificate Nuclear and Infranuclear Ocular Motility Disorders

- » Modality: Online
- » Duration: 6 weeks
- » Certificate: TECH Technological University
- » Dedication: 16h/week
- » Schedule: at your pace
- » Exams: online

Website: [www.techtitute.com/medicina/cursos-universitarios/trastornos-ansiedad-infantojuveniles- Motility](http://www.techtitute.com/medicina/cursos-universitarios/trastornos-ansiedad-infantojuveniles-motilidad).

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01

Introduction

Disorders that are characterized by deficiencies in ocular movements as a primary manifestation of the disease require a specific and specialized study in the field of ophthalmology. Its presence in children's patients involves an important impact on their quality of life, which can notably interfere with their vision, in addition to involving other conditions of variable severity that must be detected early. This program provides the professional with updated and complete information in this field that will allow him to intervene as an expert.





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A complete Postgraduate Certificate, of maximum specialization, which will allow the professional to focus every day on the most innovative advances in Nuclear and Infranuclear Motility Disorders”

Motility disorders within the scope of ophthalmology can encompass different types of disorders: infranuclear, nuclear and supranuclear disorders. Diseases that affect the eye muscles or oculomotor cranial nerves are considered infranuclear.

These pathologies are caused by diseases of the oculomotor, trochlear, or abducens nuclei that are located in the brain stem and that produce various symptoms.

Supranuclear disorders, on the other hand, are produced by dysfunctions of sensory and motor systems that control ocular movements, including neuronal networks in the cerebral cortex, basal ganglia, cerebellum and brain stem.

This Postgraduate Certificate has the objective of achieving a complete and fully updated compilation within the scope of ophthalmological intervention in pediatric patients. With the quality of high-level teaching, it will allow the student to take a step towards the most complete specialization in this field.

These knowledge the student can acquire online, without needing to go to any physical center to receive classes. In this way, you can continue with your academic process without giving up the rest of your daily activities.

This **Postgraduate Certificate in Nuclear and Infranuclear Ocular Motility Disorders** contains the most complete and up-to-date Educational program on the market. The most important features of the program include:

- ♦ Practical cases presented by experts in medicine.
- ♦ The graphic, schematic, and practical contents with which they are created, provide scientific and practical information on the disciplines that are essential for professional practice.
- ♦ Practical exercises where the self-assessment process can be carried out to improve learning.
- ♦ Its special emphasis on innovative methodologies
- ♦ Theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments
- ♦ Content that is accessible from any fixed or portable device with an Internet connection



An in-depth study of the different pathologies that compromise ocular motility that will put you at the forefront in this field of intervention”

“ *Increase your in this field skills by studying at TECH and start seeing your job opportunities multiply”*

The program's teaching staff includes professionals from the sector who contribute their work experience to this educational program, as well as renowned specialists from leading societies and prestigious universities.

The multimedia content, developed with the latest educational technology, will provide the professional with situated and contextual learning, i.e., a simulated environment that will provide immersive education programmed to learn 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 during the academic year. For this purpose, the student will be assisted by an innovative interactive video system created by renowned and experienced experts.

This update program is designed so that the student learns to carry out an updated therapeutic approach to nuclear and infranuclear motility disorders in the eye.

Study comfortably at TECH using the most reputable teaching methodology in the online academic panorama.



02 Objectives

This Diploma has been designed with the objective of expanding the doctor's knowledge in Nuclear and Infranuclear Motility Disorders. With an intensive and high-impact learning objective, The students will be able to start practicing their profession in this field with confidence, based on the this theoretical and practical content of this program the most adequate and innovative support to the ophthalmological pathologies of their patients.



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This Postgraduate Certificate has been designed to foster the complete learning of ophthalmology professionals in this field through a high quality process and total flexibility.”



General Objectives

- Delve into the anatomical and physiological knowledge necessary to understand the pathologies that will be developed in the following modules
- Provide the necessary knowledge for the Neuro-Ophthalmologist on the primary alterations of ocular motility and its therapeutic options
- Make known the Neuro-Ophthalmological pathologies that may occur in pediatric patients, their diagnostic approach and treatment



A unique program in its style that will help you achieve all your professional and personal goals”





Specific Objectives

- Delve into the etiology, diagnosis and treatment of paralysis of oculomotor cranial pairs
- Delve into the characteristics of the affectations of pairs V and VII
- Perform a diagnostic and therapeutic approach to the different hyperkinetic facial disorders that may occur
- Facilitate in-depth knowledge of myopathies with ophthalmological repercussions

03

Course Management

For this program, a complete group of professionals with years of experience and high prestige in the profession has been selected. In this way, attending this program becomes a unique opportunity for doctors to be able to learn from the knowledge of a high-level cloister. A unique occasion that only this University can offer.



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On your academic path you will be accompanied by a group of highly prestigious professionals in the profession”

International Guest Director

Doctor Dean Cestari is widely recognized for his dedication to the treatment of **Neuro-Ophthalmological Disorders, Strabismus and Diplopia**, which has made a significant difference in the lives of numerous patients. Therefore, I am one of only a few ophthalmologists around the world certified by the council in **Neurology and Ophthalmology**, which underlines his deep knowledge in both disciplines.

With extensive experience as a **Neuro-Ophthalmologist and Strabismus Surgeon**, Cestaria has excelled in leading healthcare settings such as **Mass Eye & Ear**. Within this same institution, he also serves as Codirector of the **Center for Thyroid Eye Disease and Orbital Surgery** where he leads a team of experts committed to medical excellence.

In addition to his outstanding clinical department, he is a pioneer in the investigation of **Optical Nerve Diseases** and has dedicated a large part of his work to **Ischemic Optical Neuropathy**. In this sense, his tireless search for solutions has led to the evaluation of innovative neuroprotective agents to preserve and restore vision affected by **Vascular Occlusion**. Today, Doctor Cestari has developed as an outstanding **Principal Investigator (PI) and Co-PI** in multiple research projects and clinical trials. To this must be added the authorship of the first **Case Book of Cases Teaching Strabismus Surgery Using the Adjustable Suture Technique**.

Moreover, Dean Cestari has played crucial roles in committees of renowned ophthalmological organizations. In addition, he combines his work as a clinician and researcher supervising and guiding future medical professionals, as **Chairman of the Clinical Fellowship Committee and Director of the Neuro-Ophthalmology Fellowship Program at Mass Eye & Ear**. In 2012, he was honored with an **Achievement Award**, given by the **American Academy of Ophthalmology**, a recognition of his outstanding contribution to Ophthalmology and scientific education.



Dr. Cestari, Dean

- Adult Neuro-Ophthalmologist and Strabismus Surgeon at Mass Eye & Ear
- Co-Director of the *Center for Thyroid Eye Disease and Orbital Surgery* at Mass Eye & Ear
- Associate Professor of Ophthalmology at Mass Eye & Ear.
- Co-Founder of *Total Direct Care (Atención Directa Total)*
- President of the Mass Eye & Ear Clinical Care Committee
- Director of the Mass Eye & Ear in Neuro-Ophthalmology Care Programming
- **Harvard Medical School Catalyst Grant**
- *Achievement Award (2012) from the American Academy of Ophthalmology*
- *Miembro de la Digital Media Committee of the American Academy of Ophthalmology y el Curriculum Development Committee of the North American*

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

Management



Dr. Luque Valentin-Fernández, María Luisa

- ◆ Head of the Ophthalmology Department at Hospital de La Luz.
- ◆ Professor of Ophthalmology, Francisco de Vitoria University.
- ◆ PhD in Medicine and Surgery from the Complutense University of Madrid
- ◆ Specialist via Qualified Nurse in Ophthalmology, Gregorio Marañón General University Hospital
- ◆ Master's Degree in Health Care Quality from the Rey Juan Carlos University.
- ◆ Postgraduate Diploma in Design and Statistics in Health Sciences, Autonomous University of Barcelona.
- ◆ President of the Continuing Education Commission of the El Escorial Hospital hospital.
- ◆ President of the Continuing Education Commission of the El Escorial Hospital hospital.
- ◆ Quality Coordinator of of the El Escorial Hospital hospital Hospital



Professors

Dr. García Bastera, Ignacio

- ◆ Optional Specialist in the Ophthalmology Service Area at the Hospital Universitario Virgen de la Victoria. Malaga
- ◆ Head of the Adult Neuro-Ophthalmology and Strabismus Unit at the Clinical University Hospital Virgen de la Victoria in
- ◆ Doctor of Medicine and Surgery from the University of Málaga.
- ◆ Specialist via MIR in Neurology, Virgen de las Nieves University Hospital, Granada.
- ◆ Specialist via MIR in Ophthalmology, Virgen de la Victoria University Hospital,.
- ◆ Members Member of the Neuro-Ophthalmology group of the Andalusian Society of Ophthalmology.

04

Structure and Content

The contents of this program allow you to acquire theoretical and practical training on neuro-ophthalmological disorders and pathologies in pediatric patients. All this, in multimedia format, with videos, theoretical lessons and work tools of the highest level to facilitate the learning process of the doctors and help them reach the top of their profession.





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High quality content that can be integrated with the best teaching methodology for the online market”

Module 1. Nuclear and Infranuclear Motility Disorders

- 1.1. Horner Syndrome
 - 1.1.1 Anatomical Bases and Pathophysiology of the Oculosympathetic Pathway
 - 1.1.2 Causes of Horner's Syndrome
 - 1.1.3 Clinical Findings
 - 1.1.4 Diagnosis
 - 1.1.5 Treatment
- 1.2. Paralysis of the III Pair
 - 1.2.1 Anatomical bases and pathophysiology
 - 1.2.2 Etiology
 - 1.2.3 Clinical Findings
 - 1.2.4 Aberrant Regeneration of the III Cranial Nerve
 - 1.2.5 Diagnosis
 - 1.2.6 Treatment
- 1.3. Paralysis of the IV Pair
 - 1.3.1 Anatomical bases and pathophysiology
 - 1.3.2 Etiology
 - 1.3.3 Clinical Findings
- 1.4. Paralysis of the VI Pair
 - 1.4.1 Anatomical bases and pathophysiology
 - 1.4.2 Etiology
 - 1.4.3 Clinical Findings
- 1.5. Paralysis of the VII Pair
 - 1.5.1 Anatomical bases and pathophysiology
 - 1.5.2 Etiology
 - 1.5.3 Clinical Findings
- 1.6. Treatment of Facial Paralysis
 - 1.6.1 Management of Facial Paralysis
 - 1.6.2 Prognosis
 - 1.6.3 New Treatments
- 1.7. Combined Paralysis of the cranial Nerves
 - 1.7.1 Keys in the Diagnosis of Multiple Cranial Paralysis
 - 1.7.2 Most Common Causes of Multiple Cranial Pair Involvement
 - 1.7.3 Useful Complementary Tests and Diagnostic Algorithm
- 1.8. Other Neuropathies
 - 1.8.1 Hyperkinetic Facial Disorders
 - 1.8.2 Infectious and Immune-Mediated Neuropathies
 - 1.8.3 Trauma and Tumors
- 1.9. Myopathies I
 - 1.9.1 Myasthenia Gravis
 - 1.9.2 Pseudomyasthenic Syndromes
- 1.10. Myopathies II
 - 1.10.1 Chronic Progressive External Ophthalmoplegia
 - 1.10.2 Myotonic Dystrophy



A complete, efficient and affordable plant that will allow you to achieve excellence in this field of medical intervention”



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. 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:

1. Students who follow this method not only achieve the assimilation of concepts, but also a development of their mental capacity, through exercises that assess 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

TECH effectively combines the Case Study methodology with a 100% online learning system based on repetition, which combines 8 different teaching elements in each lesson.

We enhance the Case Study with the best 100% online teaching method: Relearning.

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 prepared with unprecedented success in all clinical specialties regardless of surgical load. Our educational 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 adapted in 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 assess and re-assess students' knowledge throughout the program, through assessment and self-assessment activities and exercises, so that they can see how they are achieving their goals.



Classes

There is scientific evidence on the usefulness of learning by observing experts. The system known as Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.



Quick Action Guides

TECH offers the most relevant contents of the course in the form of worksheets or quick action guides. A synthetic, practical and effective way to help students progress in their learning.



06

Certificate

The Postgraduate Certificate in Nuclear and Infranuclear Ocular Motility Disorders guarantees students, in addition to the most rigorous and up-to-date education, the access to at Postgraduate Certificate issued by TECH Technological University.





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

This **Postgraduate Certificate in Nuclear and Infranuclear Ocular Motility Disorders** contains the most complete and up-to-date Scientific program on the market.

After the student has passed the assessments, they will receive their corresponding **Postgraduate Certificate** diploma issued by **TECH Technological University via tracked delivery**

The diploma issued by **TECH Technological University** will reflect the qualification obtained in the Postgraduate Certificate, and meets the requirements commonly demanded by labor exchanges, competitive examinations and professional career evaluation committees.

Title: **Postgraduate Certificate in Nuclear and Infranuclear Ocular Motility Disorders**
Official N° of Hours: **150 hours**.





Postgraduate Certificate

Nuclear and Infranuclear
Ocular Motility Disorders

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