

# Postgraduate Certificate

## Pediatric Neuro-Ophthalmology



## Postgraduate Certificate

### Pediatric Neuro- Ophthalmology

- » Modality: online
- » Duration: 6 weeks
- » Certificate: TECH Technological University
- » Dedication: 8h/week
- » Schedule: at your own pace
- » Exams: online

Website: [www.techtute.com/pk/medicine/postgraduate-certificate/pediatric-neuro-ophthalmology](http://www.techtute.com/pk/medicine/postgraduate-certificate/pediatric-neuro-ophthalmology)

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# 01

# Introduction

Pediatric Neuro-Ophthalmology is a field that approaches numerous areas of intervention and requires from its professionals a broad and often multidisciplinary vision. Successful intervention is a process that begins with the mastery of the most current approaches to improve prognosis from early intervention. This program compiles for the professionals, the most outstanding advances and developments in this field in order to provide them with a competence growth, which enables them for an early, accurate and efficient detection, achieving a therapeutic intervention of the highest level.







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*A Postgraduate Certificate of exceptional quality that perfectly combines scientific demand with flexibility to offer the specialist a real opportunity for development in this field"*

In the ophthalmological consultation of children, the specialists need a broad vision that allows them to detect the root of a disorder that may reside in the network of nerves or in the cells that transmit information to the brain and spinal cord, or the nervous system.

Symptoms may include vision loss, double vision, eye movement abnormalities, infection, inflammation and others. At this point, comprehensive clinical assessments of visual acuity are necessary, with the performance of clinical tests that provide answers to guide towards an adequate and accurate diagnosis.

In the case of the treatment of ophthalmologic diseases, clinical judgment often requires the intervention of other specialties, particularly neurologists. But also, neurosurgeons, oncologists, geneticists, immunologists, rheumatologists and endocrinologists.

This complete program will cover the different diagnostic and approach aspects that the professional must master, taking the student through the most innovative and up-to-date theoretical and practical developments in the current medical panorama.

This **Postgraduate Certificate in Pediatric Neuro-Ophthalmology** contains the most complete and up-to-date educational program in the market.

- ♦ 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 development
- ♦ 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



*A Postgraduate Certificate developed on the basis of the latest scientific and medical developments in the field of Pediatric Neuro-Ophthalmology"*

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*A learning process created to offer the professional a complete training process through the most efficient form of study"*

The program's teaching staff includes professionals from the sector who contribute their work experience to this training 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 training 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. For this purpose, the student will be assisted by an innovative interactive video system created by renowned and experienced experts.

*With an innovative approach to work, this Postgraduate Certificate is configured as a fast and effective way of professional growth.*

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



# 02 Objectives

This Postgraduate Certificate is a high-quality professional development path. It has been developed with the highest level of demand in its theoretical and practical contents in order to achieve the complete development of knowledge by the professional. The students will be able to start practicing their profession in this area with confidence, based on the acquired knowledge, offering the most adequate and innovative support to the ophthalmological pathologies of their patients in this field.





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*A competence development process based on innovation, with the highest scientific and medical rigor"*



## General Objectives

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- 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





## Specific Objectives

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- Delve into normal and abnormal visual development
- Delve into specific Neuro-Ophthalmological examination techniques for pediatric patients
- Train to identify the possible anatomical or functional developmental alterations that may be found in pediatric patients
- Develop the optic nerve pathologies that can occur in childhood



*A Postgraduate Certificate of exceptional impact for the specialist who intervenes with children in the care of their eye health"*

03

# Course Management

The great teaching and ophthalmological experience of the group of professionals who teach this Postgraduate Certificate is one of the added values of this program. Through their competence and their direct vision of the profession, they will offer students a quality support that will boost their understanding of the contents and their conversion into real competencies.







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*A novel and very efficient vision  
of the different pathologies that  
affect pediatric patients in the  
ophthalmologic area”*

## 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

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





## Professors

### Dr. Noval Martin, Susana

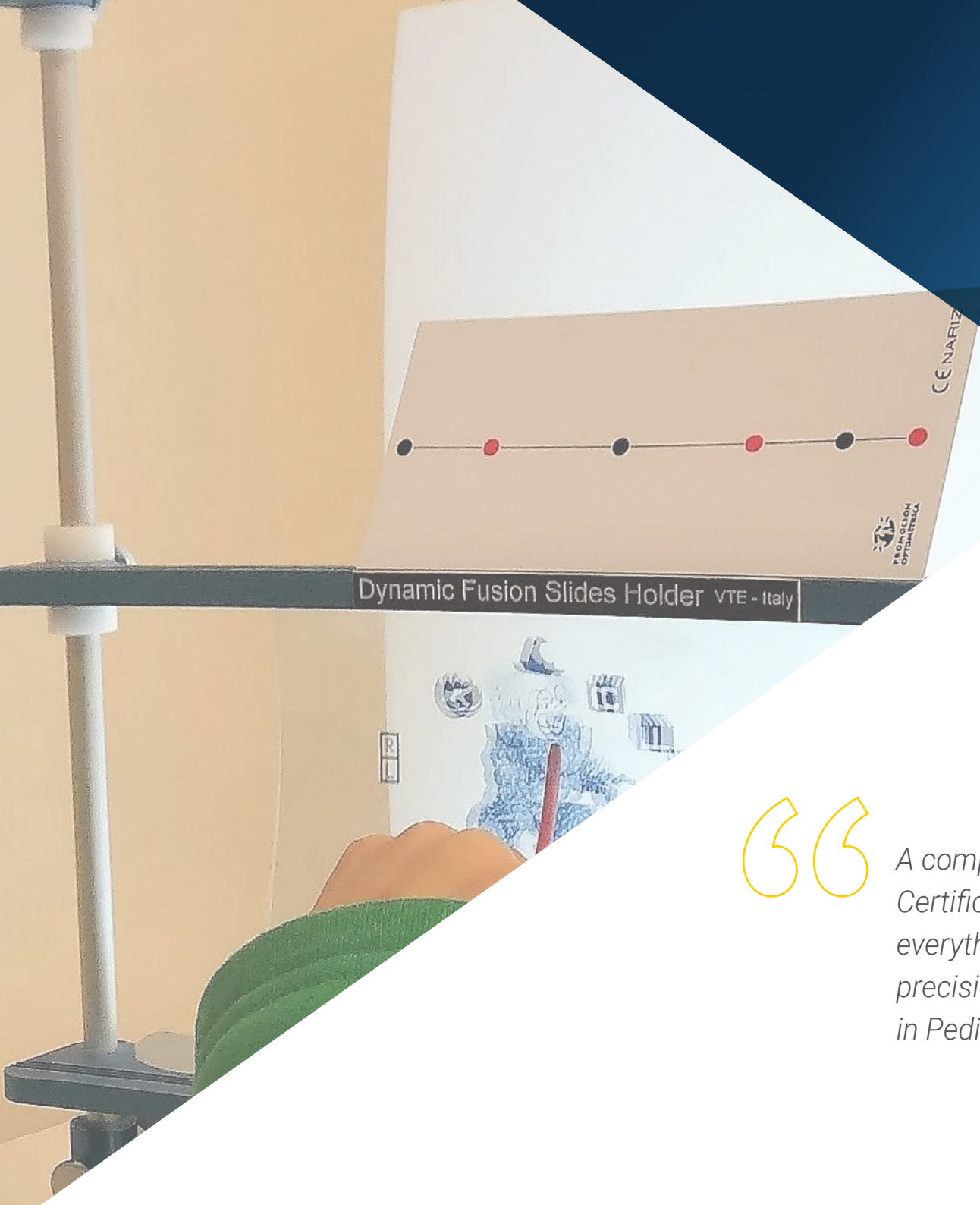
- Child Ophthalmologist at the Pediatric Unit of the La Paz University Hospital.
- Degree in Medicine from the Autonomous University Madrid
- Specialty in Ophthalmology, Ramón y Cajal University Hospital, Madrid.
- Master's Degree in Neuro-immunology from the Autonomous University of Barcelona
- Master's Degree in Medical Management and Clinical Management by the UNED

# 04

## Structure and Content

Throughout this Postgraduate Certificate you will have access to the most up-to-date theoretical and practical knowledge in the approach to Neuro-Ophthalmological conditions that affect the first age. All contents are accessible in multimedia format, with videos, theoretical lessons and working tools developed to facilitate the physicians learning process and help them achieve maximum competence in this area.





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*A completely up-to-date Postgraduate Certificate that will allow you to learn everything you need to intervene with precision in the new ways of working in Pediatric Neuro-Ophthalmology”*

## Module 1. Pediatric Neuro-Ophthalmology

- 1.1. Neuro-Ophthalmological Examination in Children Examination Techniques in the Pediatric Patient
  - 1.1.2. Electrophysiology
- 1.2. The Child with Low Vision. Delayed Visual Maturation
- 1.3. Cerebral Visual Impairment
- 1.4. Congenital Anomalies of the Anterior Optic Pathway
  - 1.4.1. Hypoplasia
  - 1.4.2. Colobomas and Optic Pits
  - 1.4.3. Optic Nerve Drusen
- 1.5. Papillary Effacement
  - 1.5.1. Intracranial Hypertension (IH) in Children
- 1.6. Optic Neuropathies in Childhood I
  - 1.6.1. Inflammatory
  - 1.6.2. Pathology
- 1.7. Childhood Neuropathies in Childhood II Hereditary
  - 1.7.1. Dominant Optic Atrophy
  - 1.7.2. Leber Optic Neuropathy
- 1.8. Dominant Optic Atrophy
- 1.9. Pediatric Tumor Pathology
  - 1.9.1. Primary Optic Nerve Tumors
  - 1.9.2. Midline Tumors
  - 1.9.3. Posterior Fossa Tumors
- 1.10. Oculomotor Apraxia







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*A highly interesting and innovative curriculum created especially for the specialist who is looking for the most innovative scientific news"*

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 evaluate real situations and the application of knowledge.
2. Learning is solidly translated into practical skills that allow the student to better integrate into the real world.
3. Ideas and concepts are understood more efficiently, given that the example situations are based on real-life.
4. Students like to feel that the effort they put into their studies is worthwhile. This then translates into a greater interest in learning and more time dedicated to working on the course.



## Relearning Methodology

At TECH we enhance the case method with the best 100% online teaching methodology available: Relearning.

This university is the first in the world to combine the study of clinical cases with a 100% online learning system based on repetition, combining a minimum of 8 different elements in each lesson, a real revolution with respect to the mere study and analysis of cases.

*Professionals will learn through real cases and by resolving complex situations in simulated learning environments. These simulations are developed using state-of-the-art software to facilitate immersive learning.*





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

With this methodology, more than 250,000 physicians have been trained with unprecedented success in all clinical specialties regardless of surgical load. Our pedagogical methodology is developed in a highly competitive environment, with a university student body with a strong socioeconomic profile and an average age of 43.5 years old.

*Relearning will allow you to learn with less effort and better performance, involving you more in your specialization, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation to success.*

In our program, learning is not a linear process, but rather a spiral (learn, unlearn, forget, and re-learn). Therefore, we combine each of these elements concentrically.

The overall score obtained by TECH's learning system is 8.01, according to the highest international standards.



This program offers the best educational material, prepared with professionals in mind:



#### Study Material

All teaching material is produced by the specialists who teach the course, specifically for the course, so that the teaching content is highly specific and precise.

These contents are then applied to the audiovisual format, to create the TECH online working method. All this, with the latest techniques that offer high quality pieces in each and every one of the materials that are made available to the student.



#### Surgical Techniques and Procedures on Video

TECH introduces students to the latest techniques, the latest educational advances and to the forefront of current medical techniques. All of this in direct contact with students and explained in detail so as to aid their assimilation and understanding. And best of all, you can watch the videos as many times as you like.



#### Interactive Summaries

The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



#### Additional Reading

Recent articles, consensus documents and international guidelines, among others. In TECH's virtual library, students will have access to everything they need to complete their course.







#### Expert-Led Case Studies and Case Analysis

Effective learning ought to be contextual. Therefore, TECH presents real cases in which the expert will guide students, focusing on and solving the different situations: a clear and direct way to achieve the highest degree of understanding.



#### Testing & Retesting

We periodically evaluate and re-evaluate students' knowledge throughout the program, through assessment and self-assessment activities and exercises, so that they can see how they are achieving their goals.



#### Classes

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



#### Quick Action Guides

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



# 06 Certificate

The Postgraduate Certificate in Pediatric Ophthalmology guarantees students, in addition to the most rigorous and up-to-date education, access to a 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 Pediatric Neuro-Ophthalmology** 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**, issued by **TECH Technological University** via tracked delivery\*.

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

Title: **Postgraduate Certificate in Pediatric Neuro-Ophthalmology**  
Official N° of Hours: **150 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.



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



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- » Modality: online
- » Duration: 6 weeks
- » Certificate: TECH Technological University
- » Dedication: 8h/week
- » Schedule: at your own pace
- » Exams: online

# Postgraduate Certificate

Pediatric

Neuro-Ophthalmology