

Postgraduate Diploma

Pediatric Neuro-Ophthalmology



Postgraduate Diploma Pediatric Neuro- Ophthalmology

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

Website: www.techtute.com/pk/medicine/postgraduate-diploma/postgraduate-diploma-pediatric-neuro-ophthalmology

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01

Introduction

Pediatric Neuro-Ophthalmology has a direct impact on the quality of life of patients at early ages. Thus, this discipline, which stands out for treating the involvement of visual diseases with the brain, can help detect possible pathologies such as strabismus and/or promote normal visual development in minors. Programs like this that TECH presents help doctors to fully specialize in this exciting field by not only improving the health of their patients, but also growing their professional career.





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Work with children and adolescents with visual pathologies and become a factor of change towards a better quality of life in your patients by studying this TECH Postgraduate Diploma"

Pediatric Neuro-Ophthalmology is responsible for studying the visual structural functions and their involvement with the brain of patients at an early age. In other words, it analyzes the ocular mobility, that of the cranial nerves and that of the structures that coordinate the eye movements, regularizing the integration with other sensory systems.

This Postgraduate Diploma will seek to delve into Pediatric Neuro-Ophthalmology by studying, mainly, the main pathologies that can occur in minors. Likewise, it will delve into its diagnostic approach and treatment.

On the other hand, the contents of this Postgraduate Diploma have been elaborated by ophthalmologists, neurologists and neurosurgeons, with the aim of enriching to the maximum the experience of the student. In this way, the professional will acquire diagnostic and therapeutic skills of the various Neuro-Ophthalmological pathologies known. In this way, you will be able to make a correct diagnostic approach for children by knowing the proper use of the most innovative technologies.

Finally, during the Postgraduate Diploma will delve into the primary alterations of ocular motility (strabismus). All this with the aim of offering professionals the necessary knowledge about the primary alterations of eye motility and their therapeutic options in children and adolescents.

This knowledge can be acquired online, that is, without having to travel to any physical center to receive classes. Thus, you can continue with your academic process without giving up the rest of your daily activities.

This **Postgraduate Diploma in Pediatric Neuro-Ophthalmology** 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



If you want to acquire deep knowledge in the different pathologies that compromise eye motility, then this Postgraduate Diploma is for you"

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This updating program is designed for the student to learn to perform a superior therapeutic approach to their patients with Neuro-Ophthalmological pathologies"

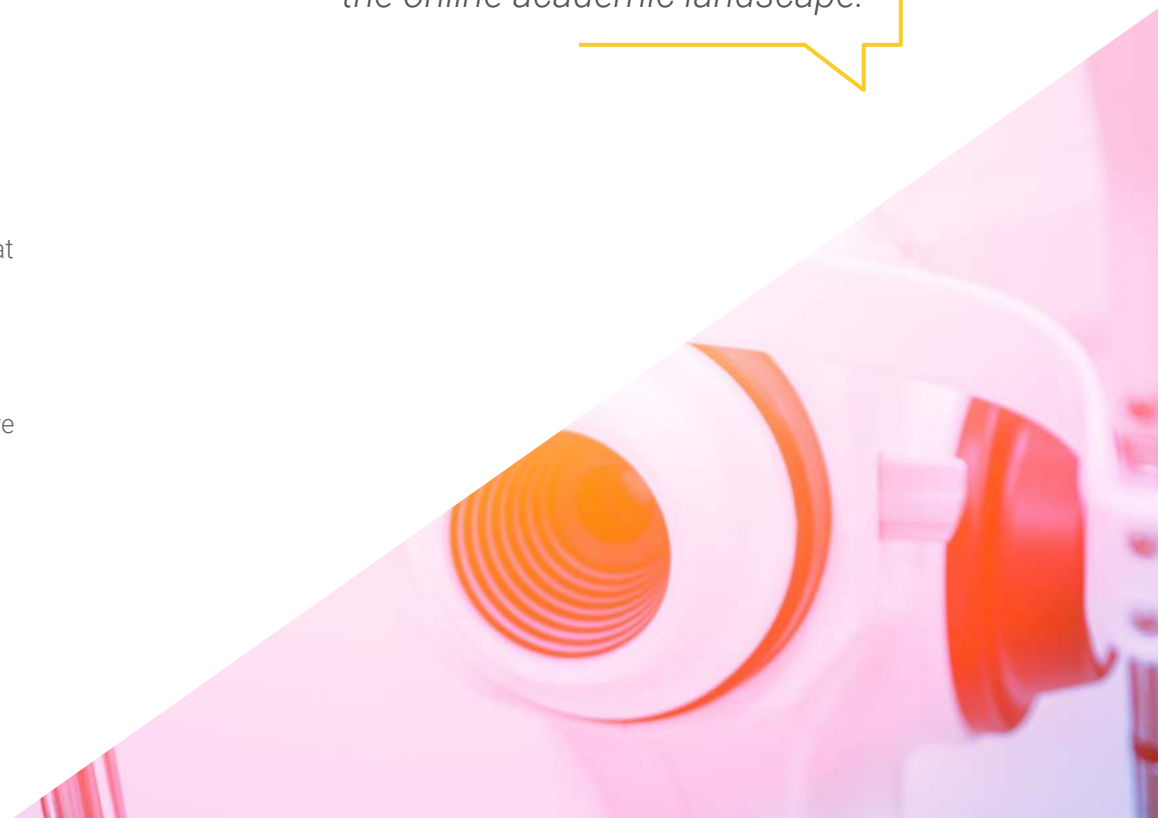
The program's teaching staff includes professionals from the sector who contribute their work experience to this training program, as well as renowned specialists from leading societies and prestigious universities.

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 during the academic year. For this purpose, the student will be assisted by an innovative interactive video system created by renowned and experienced experts.

Increase your skills in this field by studying at TECH and start to see how your job opportunities multiply.

Study comfortably at TECH based on the most reputable teaching methodology of the online academic landscape.



02 Objectives

This Postgraduate Diploma has been designed with the aim of broadening the knowledge of the physician in everything related to Neuro-Ophthalmological pathologies in patients at early ages. Thus, with quality content and the best teaching staff on the market, the students will be able to start exercising their profession in this area with total success, contributing positively to the normal development of the visual functions of their pediatric patients.





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If your goal is to become a better Neuro-Ophthalmologist, and improve the quality of life of patients at an early age, then this program is for you”



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

Module 1. Embryology, Anatomy and Physiology

- ♦ Delve into the bone, vascular and muscular anatomy that may be involved in the various Neuro-Ophthalmological pathologies
- ♦ Describe the anatomical particularities of the visual pathway and its involvement in image perception

Module 2. Strabismus

- ♦ Define specific concepts of visual development with impact on ocular motility
- ♦ Develop the clinic and treatment of alterations of ocular statics and mobility, both horizontal and vertical or compound
- ♦ Raise awareness of both surgical and non-surgical treatment options

Module 3. Pediatric Neuro-Ophthalmology

- ♦ 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

03

Course Management

In order to make the learning process easier for students, TECH has counted on a group of professionals with years of experience and high prestige in the profession. In this way, studying this Postgraduate Diploma becomes a unique opportunity for doctors because they will be able to learn from the knowledge of a high-level faculty. A unique occasion that only this University can offer.





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In your academic journey you will be accompanied by a group of professionals of high prestige in the profession"

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. González Martin-Moro, Julio

- ♦ Ophthalmologist at the University Hospital of Alcalá de Henares.
- ♦ Professor of Ophthalmology at the Francisco de Vitoria University and CTO medicine.
- ♦ Degree in Medicine and Surgery from the Autonomous University of Madrid.
- ♦ Specialization in ophthalmology at the Ramón y Cajal University Hospital in Madrid.
- ♦ Master's Degree in Clinical Research Methodology from the Autonomous University of Barcelona.
- ♦ Reviewer of different Magazines such as Ophthalmology, European Journal of Ophthalmology, Clinical and experimental Ophthalmology

Dr. Domingo Gordo, Blanca

- ♦ Members of the Neuro-Ophthalmology Unit at the San Carlos Clinical Hospital. Madrid
- ♦ Attending Physician of the Ocular Motility Unit of the Clinical Hospital San Carlos. Madrid
- ♦ Ophthalmologist in charge of Strabology and Neuro-Ophthalmology at the Ophthalmology Clinic AVER.
- ♦ Dr. in Ophthalmology from the Complutense University of Madrid.
- ♦ Degree in Medicine and General Surgery. Complutense University of Madrid
- ♦ Specialist in Ophthalmology. Specialist in Family and Community Medicine. Via MIR
- ♦ Member of scientific societies: Spanish Society of Ophthalmology (SEO), Spanish Society of Strabology and Pediatric Ophthalmology (SEEOP), American Academy of Ophthalmology (AAO), Spanish Society of Ophthalmology (SEO).

Dr. Noval Martin, Susana

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

04

Structure and Content

The contents of this program are divided into three modules that bring together intensive and eminently practical training on Neuro-Ophthalmological disorders and pathologies in pediatric patients. All this, in multimedia format, with videos, theoretical lessons and working tools of the highest level to facilitate the learning process of the doctors and help them to reach the highest level in their profession.





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Quality content designed from the best teaching methodology will help you reach the highest in your work"

Module 1. Embryology, Anatomy and Physiology

- 1.1. Embryology of the Visual System
 - 1.1.1. Columnar Model of the Embryology of the Visual System and CNS
 - 1.1.2. Prosomeric Model of the Embryology of the Visual System and CNS
 - 1.1.3. Ocular Teratology
- 1.2. Bone Anatomy: The Skull
- 1.3. Vascular Anatomy
- 1.4. Muscular Anatomy
- 1.5. Afferent Visual Pathway
 - 1.5.1. Prechiasmatic Optic Pathways
 - 1.5.2. Postchiasmatic Optic Pathways
- 1.6. Efferent Pathway
 - 1.6.1. Anatomy of the Cranial Nerve Pairs
 - 1.6.2. Brainstem Motor Nuclei
- 1.7. Sensory Innervation
- 1.8. Motor Innervation
- 1.9. Ocular Autonomic Nervous System
 - 1.9.1. Sympathetic System
 - 1.9.2. Parasympathetic System
- 1.10. Topographic Diagnosis of Visual Field Disturbances

Module 2. Strabismus

- 2.1. Applied Anatomy of the Extraocular Musculature
- 2.2. Development of the Visual System
- 2.3. Exploration
 - 2.3.1. Assessment of Fusion, Suppression and Diplopia
 - 2.3.2. Parks Test. Lancaster Screen
 - 2.3.3. Differential Diagnosis between Strabismus and Neurological Disorder
- 2.4. Amblyopia
 - 2.4.1. Strabismic Amblyopia
 - 2.4.2. Amblyopia due to Anisometropia
 - 2.4.3. Amblyopia due to Media Opacity
- 2.5. Esotropia
 - 2.5.1. Acute Esotropia
 - 2.5.2. Age-Related Esotropia
- 2.6. Exotropia
 - 2.6.1. Acute Exotropia
- 2.7. Vertical Strabismus
 - 2.7.1. Differential Diagnosis
 - 2.7.2. *Sagging Eye*
- 2.8. Combined and Restrictive Syndromes
 - 2.8.1. Duane Syndrome. Brown Syndrome
 - 2.8.2. Myopic Myopathy
 - 2.8.3. Thyroid Orbitopathy
 - 2.8.4. Iatrogenic Myopathy
- 2.9. Refractive and Orthoptic Treatment
 - 2.9.1. Optical Correction
 - 2.9.2. Correction with Prisms
- 2.10. Surgical Management
 - 2.10.1. Botulinum toxin
 - 2.10.2. Extraocular Muscles Surgery

Module 3. Pediatric Neuro-Ophthalmology

- 3.1. Neuro-Ophthalmologic Examination in Children
 - 3.1.1. Examination Techniques in the Pediatric Patient
 - 3.1.2. Electrophysiology
- 3.2. The child With Low Vision. Delayed Visual Maturation
- 3.3. Cerebral Visual Impairment
- 3.4. Congenital Anomalies of the Anterior Optic Pathway
 - 3.4.1. Hypoplasia
 - 3.4.2. Colobomas and Optic Pits
 - 3.4.3. Optic Nerve Drusen
- 3.5. Papillary Effacement
 - 3.5.1. Intracranial Hypertension (IH) in Children
- 3.6. Optic Neuropathies in Childhood I
 - 3.6.1. Inflammatory
 - 3.6.2. Pathology
- 3.7. Optic Neuropathies in Childhood II Hereditary
 - 3.7.1. Dominant Optic Atrophy
 - 3.7.2. Leber Optic Neuropathy
- 3.8. Optical Atrophy and Papillary Excavation in the Child
- 3.9. Pediatric Tumor Pathology
 - 3.9.1. Primary Tumors of the Optic Nerve
 - 3.9.2. Midline Tumors
 - 3.9.3. Posterior Fossa Tumors
- 3.10. Oculomotor Apraxia



Study at TECH and become part of this institution's long list of success stories"

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

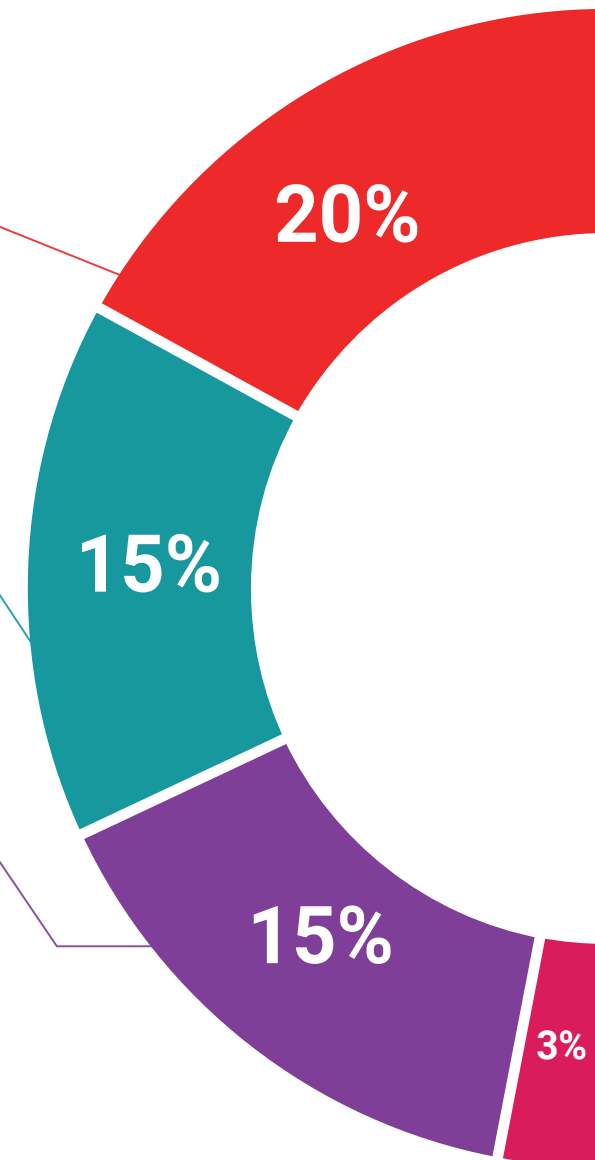
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

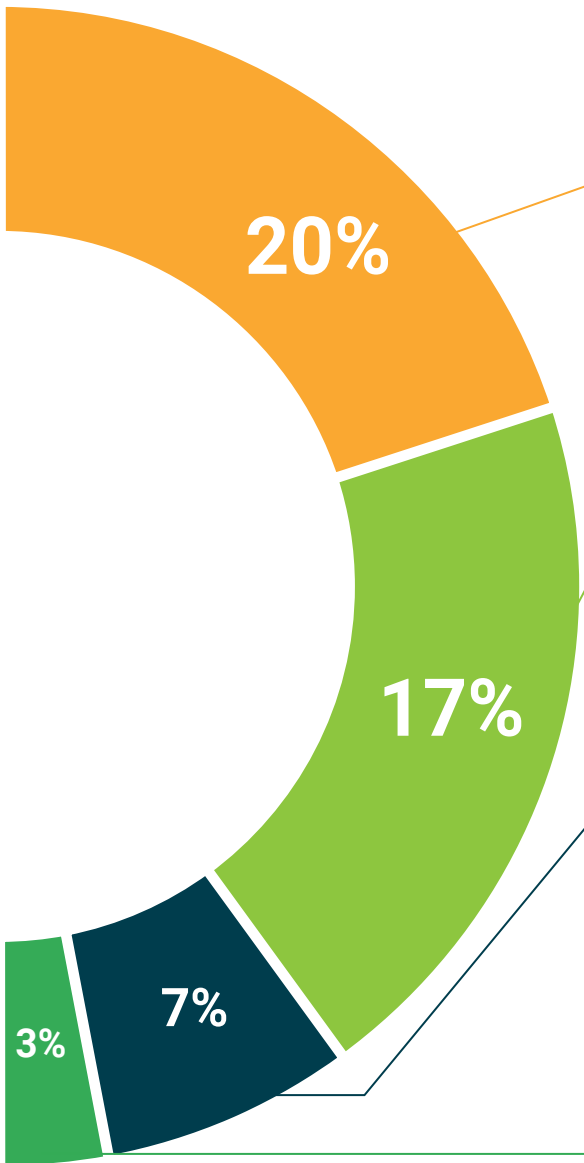
This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



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

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

Title: **Postgraduate Diploma in Pediatric Neuro-Ophthalmology**

Official N° of Hours: **450 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

tech technological
university

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