



## Postgraduate Diploma Visual Impairment and

Academic Performance

» Modality: online

» Duration: 6 months

» Certificate: TECH Technological University

» Dedication: 16h/week

» Schedule: at your own pace

» Exams: online

Website: www.techtitute.com/pk/education/postgraduate-diploma/postgraduate-diploma-visual-impairment-academic-performance

# Index

 $\begin{array}{c|c} \textbf{Introduction} & \textbf{ODjectives} \\ \hline \textbf{03} & \textbf{04} & \textbf{05} \\ \hline \textbf{Course Management} & \textbf{Structure and Content} & \textbf{Methodology} \\ \hline \textbf{p. 12} & \textbf{p. 16} & \textbf{0.20} \\ \hline \end{array}$ 

06 Certificate





### tech 06 | Introduction

This program makes professionals in this field increase their capacity for success, which results in a better practice and performance that will have a direct impact on the educational treatment, on the improvement of the educational system and on the social benefit for the whole community.

In response to the demand for professionals prepared to detect and intervene in the field of problems associated with vision, this program focused on education has been developed.

Special emphasis is placed on classroom learning, but above all, on the development of reading and writing skills, in order to learn how to detect visual problems, their consequences and the most appropriate way to intervene in each case.

An essential feature of this program is the description of both the symptomatology and the problems associated with visual impairment in the classroom, which enables a comprehensive approach to any adversity related to the visual system in academic performance.

A unique opportunity to contemplate the wide range of education with respect to visual system problems, covering the various interventions addressed with sufficient clarity to be applied in professional practice.

This program offers a broad and comprehensive view of the complex world of the visual system and its implications in different areas of life, including academia, gathering the different theoretical and practical approaches, so that any interested professional will first know what the visual system is, how it develops, what deficiencies it may present, how to detect them, and what interventions to carry out, all with the objective of making it applicable to the workplace.

This is an improvement over programs that focus on physiological bases and physical and functional problems; or exclusively psycho-pedagogical programs, where the implications of visual impairment in the educational system are studied in depth.

This Postgraduate Diploma in Visual Impairment and Academic Performance contains the most complete and up-to-date educational program on the market. The most important features include:

- The development of practical cases presented by experts in Visual Impairment and Academic Performance
- 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
- Latest developments on visual disturbances and academic performance
- It contains practical exercises where the self-assessment process can be carried out to improve learning
- Special emphasis on innovative methodologies on Visual Skills and Academic Performance
- All of this will be complemented by 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





This Postgraduate Diploma is the best investment you can make when selecting a refresher program, for two reasons: in addition to updating your knowledge in Visual Impairment and Academic Performance, you will obtain a qualification endorsed by TECH Technological University"

Its teaching staff includes professionals belonging to the field of teaching and pedagogy, who bring to this training the experience of their work, in addition to recognized specialists belonging to prestigious reference societies and universities.

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 prepare in real situations.

This program is designed around Problem-Based Learning, whereby the educators must try to solve the different professional practice situations that arise during the academic program. For this purpose, teachers will be assisted by an innovative interactive video system developed by renowned experts in the field of Visual Skills and School Academic with extensive teaching experience.

Increase your decision-making confidence by updating your knowledge with this program.

Make the most of this opportunity to learn about the latest advances in Visual Impairment and Academic Performance and improve your student's performance.







### tech 10 | Objectives



### **General Objectives**

- Update knowledge on the importance of the visual system in the classroom, with special emphasis on the appearance or presence of visual deficiencies or problems and future intervention, in order to increase the quality of professional praxis
- Introduce students to the wide world of visual problems in the classroom, and know
  the different contributions from the study of vision in academic achievement and
  the potential options for intervention
- Apply the tools used for visual impairment detection and the different alternatives for intervention and curricular or classroom material adaptation
- Enable the development of skills and abilities by encouraging continuous training and research



Acquire the theoretical knowledge and the practical tools necessary to be part of high-capacity Visual Impairment and Academic Performance projects"





#### Module 1. Fundamentals of Learning and Academic Performance

- · Understand the peculiarities of adult learning
- Recognize the role the senses play in learning
- Observe perception in learning
- Explore attention in learning
- Solve attention-related problems in learning: ADHD

#### Module 2. The Visual System

- Discover paralytic strabismus
- Learn about refractive strabismus
- Introduce monocular amblyopia
- Distinguish bilateral amblyopia
- Understand congenital nystagmus
- Learn about childhood nystagmus
- Identify myopia

#### Module 3. Visual Dysfunctions

- Discover the process of reading
- Learn about the developments associated with reading
- Introduce oral speech skills in reading
- Discern phonological awareness in reading
- Understand the logographic phase of reading
- Learn about the alphabetic phase of reading

#### Module 4. Ocular Pathology

- Discover the process of writing
- Learn about the development associated with writing
- Evaluate the planning module in writing
- Understand the intervention of the planning module in writing
- Understand the intervention of the lexical modules in writing





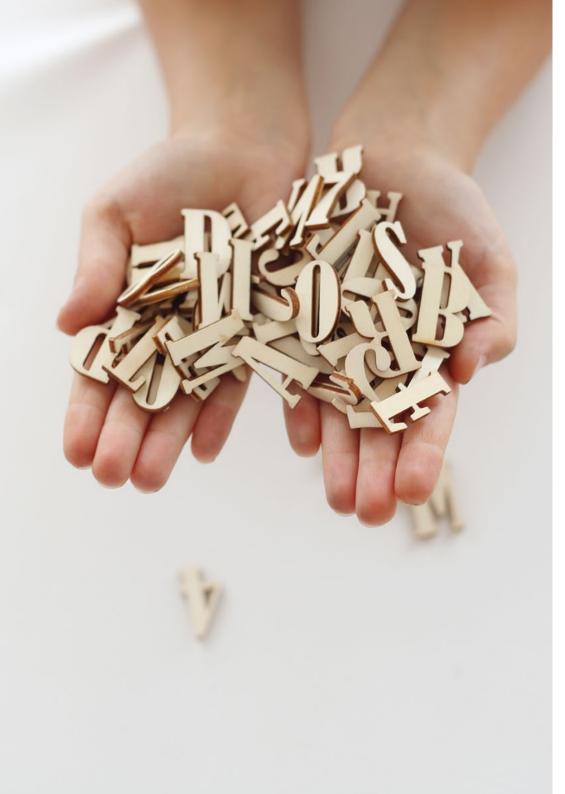
### tech 14 | Course Management

### Management



### Mr. Vallejo Salinas, Ignacio

- Primitive Reflex Therapist and T.M.R.
- Diploma in Optics and Optometry from the University of Granada
- Diploma in Optics from the Complutense University of Madrid
- Master's Degree in Clinical Optometry from the European University of Madrid
- Science Master's Degree in Clinical Optometry from Pennsylvania College of Optometry (U.S.A.)



### Course Management | 15 tech

#### **Professors**

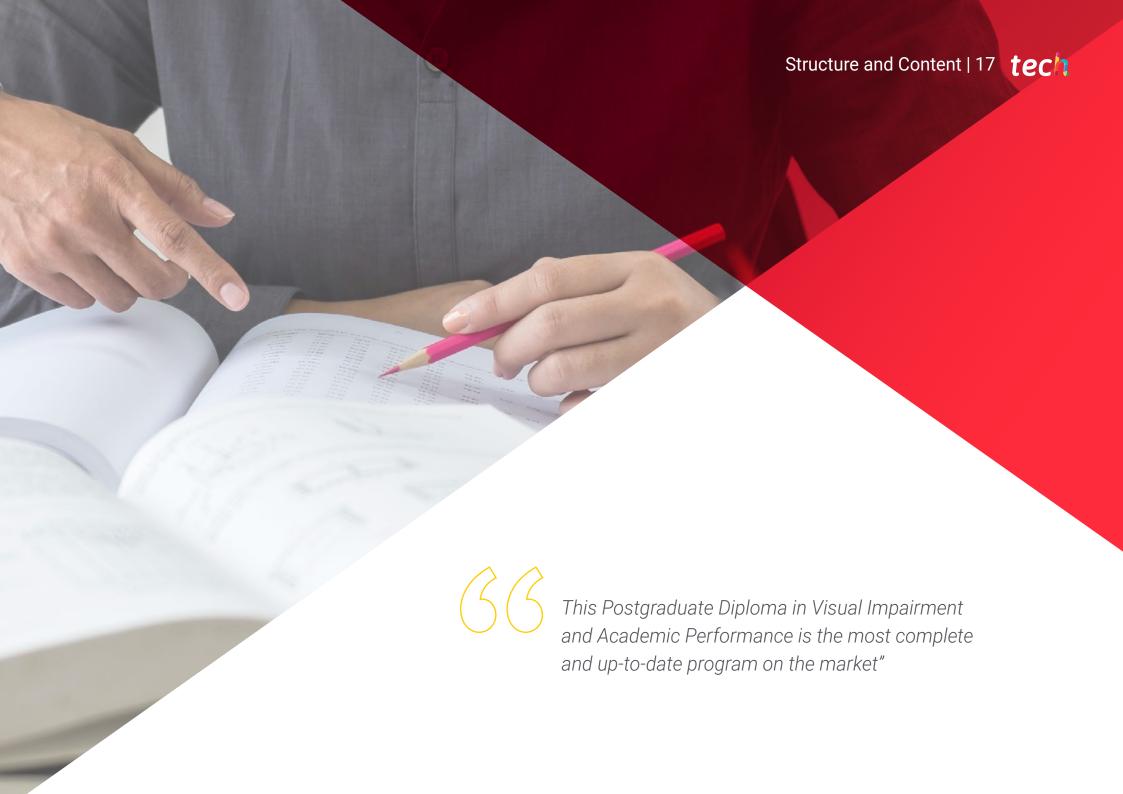
#### Dr. De la Serna, Juan Moisés

- PhD in Psychology
- Master's Degree in Neurosciences and Behavioral Biology
- Director of the Open Chair of Psychology and Neurosciences and science communicator

#### Mr. Vallejo Bermejo, Miguel

- Advanced Technician in Prosthetic Audiology
- Degree in Optics and Optometry
- Master's Degree in Visual Rehabilitation and Postgraduate Diploma in Pediatric Optometry and Visual Therapy
- Lecturer for the Degree in Optics
- Teacher for the Optometry and Audiology Training Cycle at CEU San Pablo University
- Lecturer for the Advanced Degree in Prosthetic Audiology at ISEP, for the Degree in Values and Leadership Training at CEU ILEAD and for the different modules at the Center for Creative Leadership





### tech 18 | Structure and Content

#### Module 1. Fundamentals of Learning and Academic Performance

- 1.1. Defining Learning
  - 1.1.1. Understanding Learning
  - 1.1.2. Types of Learning
- 1.2. The Characteristics of Learning
  - 1.2.1. Learning Classification
  - 1.2.2. Theories on Learning
- 1.3. Learning Assessment
  - 1.3.1. Learning in Childhood
  - 1.3.2. Learning in Adolescence
- 1.4. Basic Processes in Learning
  - 1.4.1. The Sensation Process in Learning
  - 1.4.2. The Perception Process in Learning
- 1.5. Attention Processes in Learning
  - 1.5.1. The Process of Attention in Learning
  - 1.5.2. Attention Problems in Learning
- 1.6. Cognitive Processes and Metacognitive Learning
  - 1.6.1. The Cognitive Process in Learning
  - 1.6.2. The Process of Metacognition in Learning
- 1.7. Evolution of Psychological Processes in Learning
  - 1.7.1. Origin of Psychological Processes in Learning
  - 1.7.2. Evolution of Psychological Processes in Learning
- 1.8. The Role of the Family in Education
  - 1.8.1. The family as the First Socializing Agent in Learning
  - 1.8.2. Family Educational Models
- 1.9. The Educational Context
  - 1.9.1. Features of Non-Formal Education
  - 1.9.2. Features of Formal Education
- 1.10. Learning Difficulties
  - 1.10.1. Difficulties due to Cognitive Impairments
  - 1.10.2. Difficulties in Academic Performance

#### Module 2. The Visual System

- 2.1. The Visual Nervous System
  - 2.1.1. Neurons and Neuronal Network in the Eye
  - 2.1.2. Poles and Cones
- 2.2. The Peripheral Visual Nervous System
  - 2.2.1. Sympathetic Nervous System
  - 2.2.2. Parasympathetic Nervous System
- 2.3. The Central Visual Nervous System
  - 2.3.1. Nerves and Ocular Tracts
  - 2.3.2. The Visual Cortex
- 2.4. Eye Embryology
  - 2.4.1. Ectoderm
  - 2.4.2. Mesoderm
- 2.5. Childhood Visual Development
  - 2.5.1. Infant Eye Development
  - 2.5.2. Visual Development in the First Year of Life
- 2.6. Ontogenetic Development
  - 2.6.1. Monocular Reflexes
  - 2.6.2 Binocular Reflexes
- 2.7. Adolescence Visual Development
  - 2.7.1. Adolescent Visual Development
- 2.8. Neurodegenerative Pathologies
  - 2.8.1. Visual Development in Neurodegenerative Pathologies
- 2.9. Congenital Visual Problems
  - 2.9.1. Classification and Symptomatology
  - 2.9.2. Detection and Intervention
- 2.10. Acquired Visual Problems
  - 2.10.1. Classification and Symptomatology
  - 2.10.2. Detection and Intervention

#### Module 3. Visual Dysfunctions

- 3.1. Extraocular Muscles
  - 3.1.1. Straight Muscles
  - 3.1.2. Oblique Muscles
- 3.2. Eye Movements I
  - 3.2.1. Ductions
  - 3.2.2. Versions
- 3.3. Eye Movements II
  - 3.3.1. Convergence
  - 3.3.2. Divergence
- 3.4. Associated with Parallelism
  - 3.4.1. Non-Paralytic Strabismus
  - 3.4.2. Refractive Strabismus
- 3.5 Intraocular Muscles
  - 3.5.1. Ciliary Muscles
  - 3.5.2. Lens
- 3.6. Muscles Associated to Vision Loss in One Eye
  - 3.6.1. Monocular Amblyopia
  - 3.6.2. Bilateral Amblyopia
- 3.7. Associated to Accommodation
  - 3.7.1 Insufficient/Excessive Accommodation
  - 3.7.2. Accommodation Inflexibility
- 3.8. Associated to Vergences
  - 3.8.1. Insufficient/Excessive Convergence or Divergence
  - 3.8.2. Convergence/Divergence Inflexibility
- 3.9. Associated to Oculomotor Dysfunctions
  - 3.9.1. Fixation
  - 3.9.2. Monitoring
  - 3.9.3. Saccadic
- 3.10. Associated to Refractive Defects
  - 3.10.1. Myopia
  - 3.10.2. Hyperopia

#### Module 4. Ocular Pathology

- 4.1. Associated with Parallelism
  - 4.1.1. Paralytic Strabismus
- 4.2. Associated to Eye Movement
  - 4.2.1. Congenital Nystagmus
  - 4.2.2. Nystagmus in Childhood
- 4.3. Associated to Macula
  - 4.3.1. Myopic Macular Hole
  - 4.3.2. Muscular Degeneration Related to Aging
- 4.4. Associated to Cornea and Conjunctiva
  - 4.4.1. Conjunctivitis
  - 4.4.2. Corneal Dystrophies
- 4.5. Associated to Glaucoma
  - 4.5.1 Neovascular Glaucoma
  - 4.5.2. Congenital Glaucoma
- 4.6. Associated to Color
  - 4.6.1. Color Blindness
  - 4.6.2. Achromatopsia



A unique, key, and decisive educational experience to boost your professional development"





### tech 22 | Methodology

#### At TECH Education School we use the Case Method

In a given situation, what should a professional do? Throughout the program students will be presented with multiple simulated cases based on real situations, where they will have to investigate, establish hypotheses and, finally, resolve the situation. There is an abundance of scientific evidence on the effectiveness of the method.

With TECH, educators can experience a learning methodology that is shaking the foundations of traditional universities around the world.



It is a technique that develops critical skills and prepares educators to make decisions, defend their arguments, and contrast opinions.



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:

- Educators who follow this method not only grasp concepts, but also develop their mental capacity, by evaluating real situations and applying their knowledge.
- 2. The learning process is solidly focused on practical skills that allow educators to better integrate the knowledge into daily practice.
- **3.** Ideas and concepts are understood more efficiently, given that the example situations are based on real-life teaching.
- **4.** Students like to feel that the effort they put into their studies is worthwhile. This then translates into a greater interest in learning and more time dedicated to working on the course.



### tech 24 | Methodology

### Relearning Methodology

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

Our University is the first in the world to combine case studies with a 100% online learning system based on repetition, combining a minimum of 8 different elements in each lesson, which represent a real revolution with respect to simply studying and analyzing cases.

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



### Methodology | 25 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 we have trained more than 85,000 educators with unprecedented success in all specialties. All this in a highly demanding environment, where the students have a strong socio-economic profile and an average age of 43.5 years.

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 our learning system is 8.01, according to the highest international standards.

### tech 26 | Methodology

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



#### **Study Material**

All teaching material is produced by the specialist educators who teach the course, specifically for the course, so that the teaching content is really 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.



#### **Educational Techniques and Procedures on Video**

TECH introduces students to the latest techniques, with the latest educational advances, and to the forefront of Education. All this, first-hand, with the maximum rigor, explained and detailed for your assimilation and understanding. And best of all, you can watch them as many times as you want.



#### **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 multimedia content presentation training Exclusive system 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.



### 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:



#### **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 your goals.





There is scientific evidence suggesting that observing third-party experts can be useful.

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.







### tech 30 | Certificate

This **Postgraduate Diploma in Visual Impairment and Academic Performance** contains the most complete and up-to-date 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 Visual Impairment and Academic Performance Official N° of Hours: 600 h.



<sup>\*</sup>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 Postgraduate Diploma Visual Impairment and Academic Performance

» Modality: online» Duration: 6 months

» Exams: online

» Dedication: 16h/week» Schedule: at your own pace

» Certificate: TECH Technological University

