Postgraduate Diploma

Visual Impairment and Academic Performance for Physicians

tech global university

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Postgraduate Diploma

Visual Impairment and Academic Performance for Physicians

- Modality: **online**
- Duration: **6 months**
- Certificate: **TECH Global University**
- Accreditation: **24 ECTS**
- Schedule: **at your own pace**
- Exams: **online**

Website: www.techtitute.com/us/medicine/postgraduate-diploma/postgraduate-diploma-visual-impairment-academic-performance-physicians

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01

Introduction

Sometimes, there is insufficient knowledge to detect problems associated with visual impairment or disability, which requires qualified and trained personnel.

This Postgraduate Diploma in Visual Impairments and Academic Performance will provide a sense of confidence in your professional practice, helping you grow both personally and professionally"

To address the demand for professionals trained to detect and intervene in visual impairment-related issues, this program has been developed with a focus on medicine.

A key feature of this program is the description of both the symptoms and problems associated with visual impairment in the classroom, which equips professionals to effectively handle any challenges related to the visual system and academic performance.

This is a unique opportunity to explore the wide range of educational approaches concerning visual system problems, covering various interventions presented clearly enough to be applied in professional practice.

This program offers a comprehensive view of the complex world of the visual system and its implications across different aspects of life, including academic settings. It incorporates both theoretical and practical approaches so that any professional interested in the field will understand, first, what the visual system is, how it develops, what deficiencies it may present, how to detect them, and what interventions to carry out—everything designed to be applicable in the workplace.

This program goes beyond those that focus solely on the physiological basis and physical issues of the visual system or those that are exclusively psychopedagogical, diving deeper into the implications of visual impairment in the educational system.

This broad perspective enables a better understanding of the visual system's function, its problems, and best intervention practices, offering the professional various options for application in their job based on their specific interests.

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

- Development of practical cases presented by experts in Visual Impairments 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 Impairment and Academic Performance
- Practical exercises where the self-assessment process can be carried out to improve learning
- Special emphasis on innovative methodologies in Visual Impairment and Academic Performance
- 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

Update Your Knowledge with the Postgraduate Diploma in Visual Impairment and Academic Performance for Physicians"

This postgraduate diploma could be the best investment you make in selecting a professional development program for two reasons: in addition to updating your knowledge in Visual Impairment and Academic Performance for Physicians, you will earn a diploma of completion for the Postgraduate Diploma awarded by TECH Global University"

Increase your decision-making confidence by updating your knowledge through this Postgraduate Diploma.

Take the opportunity to learn about the latest advances in this field and apply it to your daily practice.

The program features a faculty of professionals from the field of visual impairments and academic performance, who bring their professional experience to this specialization, as well as renowned specialists from leading scientific 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 an immersive learning experience designed to prepare for real-life 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. To this end, the specialist will have the support of an innovative interactive video system created by renowned experts in the field of visual impairments and academic performance, with extensive experience.

02

Objectives

The program's primary objective is focused on theoretical and practical learning, so that medical professionals can practically and rigorously master vocal alterations.

This Postgraduate Diploma will allow you to update your knowledge in Visual Impairments and Academic Performance through the use of the latest educational technology, contributing to quality and safety in decision-making"

General Objectives

- Update knowledge on the importance of the visual system in the classroom, with particular emphasis on the emergence or presence of visual impairments and their intervention, in order to improve the quality of the professional's practice and performance
- Introduce students to the extensive field of visual impairment intervention in the classroom, so they can understand the various contributions to the study of vision in academic performance and the possibilities for intervention
- Apply tools used for the detection of visual problems and explore various alternatives for intervention and curriculum adaptation or classroom materials
- Encourage the development of skills and competencies by promoting continuous training and research

Specific Objectives

- Discover incidental learning
- Differentiate institutional learning
- Understand the advantages of direct learning
- Leverage the potential of vicarious learning
- Recognize skill deficiencies
- Comprehend academic difficulties
- Explore the possibilities of informal education
- Understand the advantages of formal education
- Utilize the relationship between intelligence and family
- Learn about family educational models
- Explore childhood learning
- Comprehend the peculiarities of adult learning
- Recognize the role of sensation in learning
- Observe perception in learning
- Explore attention in learning
- Resolve attention problems in learning: ADHD
- Understand the theory of mind in learning
- Detect theory of mind issues in learning: Autism
- Discover the stages of psychological processes
- Distinguish between the evolution and involution of psychological processes
- Discover the neurons and neural networks associated with eye vision
- Learn about the specialized neurons of the eye, the rods and cones
- Introduce the sympathetic nervous system

- Understand the parasympathetic nervous system
- Distinguish between ocular nerves and ocular tracts
- Learn about the visual cortex
- Study the ectoderm
- Identify the mesoderm
- Understand the development of the eye in infants
- Classify visual development during the first year of life
- Discover monocular reflexes
- Learn about binocular reflexes
- Introduce visual development in adolescents
- Distinguish visual development in adulthood
- Understand visual development in old age
- Learn about visual development in the context of neurodegenerative pathologies
- Understand the classification and symptoms of congenital visual problems
- Introduce the detection and intervention of congenital visual problems
- Learn about the classification and symptoms of acquired visual problems
- Discover the detection and intervention of acquired visual problems
- Explore non-paralytic strabismus
- Learn about refractive strabismus
- Introduce monocular amblyopia
- Distinguish bilateral amblyopia
- Understand accommodation
- Distinguish between insufficiency and excess of accommodation
- Know the flexibility of accommodation
- Understand vergences
- Distinguish between insufficiency and excess of convergence
- Distinguish between insufficiency and excess of divergence
- Understand oculomotor dysfunction
- Identify myopia
- Establish the characteristics of hypermetropia
- Discover paralytic strabismus
- Understand congenital nystagmus
- Learn about infantile nystagmus
- Understand macular hole
- Discover age-related macular degeneration
- Learn about conjunctivitis
- Introduce corneal dystrophy
- Distinguish panuveitis
- Understand anterior uveitis
- Know about neovascular glaucoma
- Identify congenital glaucoma
- Understand color blindness
- Establish the characteristics of achromatopsia
- Learn about retinopathy of prematurity
- Introduce diabetic retinopathy

03

Structure and Content

The structure of the contents has been designed by a team of professionals from the best educational centers and universities in the country, who are aware of the relevance of up-to-date specialization and are committed to quality teaching through new educational technologies.

A comprehensive educational program, structured in well-developed teaching units, oriented towards efficient and swift learning that is compatible with your personal and professional life"

Module 1. Fundamentals of Learning and School Performance

1.1. Defining Learning
- 1.1.1. Understanding Learning
- 1.1.2. Types of Learning

1.2. Characteristics of Learning
- 1.2.1. Classification of Learning
- 1.2.2. Theories of Learning

1.3. The Evolution of Learning
- 1.3.1. Learning in Childhood
- 1.3.2. Learning in Adolescence

1.4. Basic Processes in Learning
- 1.4.1. The Sensory Process in Learning
- 1.4.2. The Perception Process in Learning

1.5. Attention Processes in Learning
- 1.5.1. The Attention Process in Learning
- 1.5.2. Attention Problems in Learning

1.6. Cognitive and Metacognitive Processes in Learning
- 1.6.1. The Cognitive Process in Learning
- 1.6.2. The Metacognitive Process in Learning

1.7. Evolution of Psychological Processes in Learning
- 1.7.1. The 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. Educational Family Models

1.9. The Educational Context
- 1.9.1. Characteristics of Non-Formal Education
- 1.9.2. Characteristics of Formal Education

1.10. Learning Difficulties
- 1.10.1. Difficulties Due to Cognitive Deficiencies
- 1.10.2. Difficulties in Academic Performance

Module 2. The Visual System

2.1. The Visual Nervous System
- 2.1.1. Neurons and Neural Networks of the Eye
- 2.1.2. Rods 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. Ocular Nerves and Tracts
- 2.3.2. Visual Cortex

2.4. Embryology of the Eye
- 2.4.1. Ectoderm
- 2.4.2. Mesoderm

2.5. Visual Development in Infancy
- 2.5.1. Development of the Eye in Infants
- 2.5.2. Visual Development During the First Year of Life

2.6. Ontogenetic Development
- 2.6.1. Monocular Reflexes
- 2.6.2. Binocular Reflexes

2.7. Visual Development in Adolescence
- 2.7.1. Visual Development in Adolescents

2.8. Neurodegenerative Pathologies
- 2.8.1. Visual Development in Neurodegenerative Pathologies

2.9. Congenital Visual Problems
- 2.9.1. Classification and Symptoms
- 2.9.2. Detection and Intervention

2.10. Acquired Visual Problems
- 2.10.1. Classification and Symptoms
- 2.10.2. Detection and Intervention

Module 3. Visual Dysfunctions

3.1. Extraocular Muscles
- 3.1.1. Rectus Muscles
- 3.1.2. Oblique Muscles

3.2. Ocular Movements I
- 3.2.1. Ductions
- 3.2.2. Versions

3.3. Ocular 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. Associated with Vision Loss in One Eye
- 3.6.1. Monocular Amblyopia
- 3.6.2. Bilateral Amblyopia

3.7. Associated with Accommodation
- 3.7.1. Insufficiency - Excess of Accommodation
- 3.7.2. Accommodation Inflexibility

3.8. Associated with Vergences
- 3.8.1. Insufficiency - Excess of Convergence or Divergence
- 3.8.2. Convergence-Divergence Inflexibility

3.9. Associated with Oculomotor Dysfunctions
- 3.9.1. Fixation
- 3.9.1. Pursuits
- 3.9.1. Saccades

3.10. Associated with Refractive Defect
- 3.10.1. Myopia
- 3.10.2. Hypermetropia

Module 4. Ocular Pathologies

4.1. Associated with Parallelism
- 4.1.1. Paralytic Strabismus

4.2. Associated with Eye Movement
- 4.2.1. Congenital Nystagmus
- 4.2.2. Infantile Nystagmus

4.3. Associated with the Macula
- 4.3.1. Macular Hole
- 4.3.2. Age-Related Macular Degeneration

4.4. Associated with the Cornea and Conjunctiva
- 4.4.1. Conjunctivitis
- 4.4.2. Corneal Dystrophy

4.5. Associated with Glaucoma
- 4.5.1. Neovascular Glaucoma
- 4.5.2. Congenital Glaucoma

4.6. Associated with Color
- 4.6.1. Color Blindness
- 4.6.2. Achromatopsia

A unique, essential, and decisive specialization experience to boost your professional development"

04

Study Methodology

TECH is the world's first university to combine the **case study** methodology with **Relearning**, a 100% online learning system based on guided repetition.

This disruptive pedagogical strategy has been conceived to offer professionals the opportunity to update their knowledge and develop their skills in an intensive and rigorous way. A learning model that places students at the center of the educational process giving them the leading role, adapting to their needs and leaving aside more conventional methodologies.

TECH will prepare you to face new challenges in uncertain environments and achieve success in your career"

The student: the priority of all TECH programs

In TECH's study methodology, the student is the main protagonist.
The teaching tools of each program have been selected taking into account the demands of time, availability and academic rigor that, today, not only students demand but also the most competitive positions in the market.

With TECH's asynchronous educational model, it is students who choose the time they dedicate to study, how they decide to establish their routines, and all this from the comfort of the electronic device of their choice. The student will not have to participate in live classes, which in many cases they will not be able to attend. The learning activities will be done when it is convenient for them. They can always decide when and from where they want to study.

"At TECH you will NOT have live classes (which you might not be able to attend)"

The most comprehensive study plans at the international level

TECH is distinguished by offering the most complete academic itineraries on the university scene. This comprehensiveness is achieved through the creation of syllabi that not only cover the essential knowledge, but also the most recent innovations in each area.

By being constantly up to date, these programs allow students to keep up with market changes and acquire the skills most valued by employers. In this way, those who complete their studies at TECH receive a comprehensive education that provides them with a notable competitive advantage to further their careers.

And what's more, they will be able to do so from any device, pc, tablet or smartphone.

> *TECH's model is asynchronous, so it allows you to study with your pc, tablet or your smartphone wherever you want, whenever you want and for as long as you want"*

Case Studies and Case Method

The case method has been the learning system most used by the world's best business schools. Developed in 1912 so that law students would not only learn the law based on theoretical content, its function was also to present them with real complex situations. In this way, they could make informed decisions and value judgments about how to resolve them. In 1924, Harvard adopted it as a standard teaching method.

With this teaching model, it is students themselves who build their professional competence through strategies such as Learning by Doing or Design Thinking, used by other renowned institutions such as Yale or Stanford.

This action-oriented method will be applied throughout the entire academic itinerary that the student undertakes with TECH. Students will be confronted with multiple real-life situations and will have to integrate knowledge, research, discuss and defend their ideas and decisions. All this with the premise of answering the question of how they would act when facing specific events of complexity in their daily work.

Relearning Methodology

At TECH, case studies are enhanced with the best 100% online teaching method: Relearning.

This method breaks with traditional teaching techniques to put the student at the center of the equation, providing the best content in different formats. In this way, it manages to review and reiterate the key concepts of each subject and learn to apply them in a real context.

In the same line, and according to multiple scientific researches, reiteration is the best way to learn. For this reason, TECH offers between 8 and 16 repetitions of each key concept within the same lesson, presented in a different way, with the objective of ensuring that the knowledge is completely consolidated during the study process.

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.

A 100% online Virtual Campus with the best teaching resources

In order to apply its methodology effectively, TECH focuses on providing graduates with teaching materials in different formats: texts, interactive videos, illustrations and knowledge maps, among others. All of them are designed by qualified teachers who focus their work on combining real cases with the resolution of complex situations through simulation, the study of contexts applied to each professional career and learning based on repetition, through audios, presentations, animations, images, etc.

The latest scientific evidence in the field of Neuroscience points to the importance of taking into account the place and context where the content is accessed before starting a new learning process. Being able to adjust these variables in a personalized way helps people to remember and store knowledge in the hippocampus to retain it in the long term. This is a model called Neurocognitive context-dependent e-learning that is consciously applied in this university qualification.

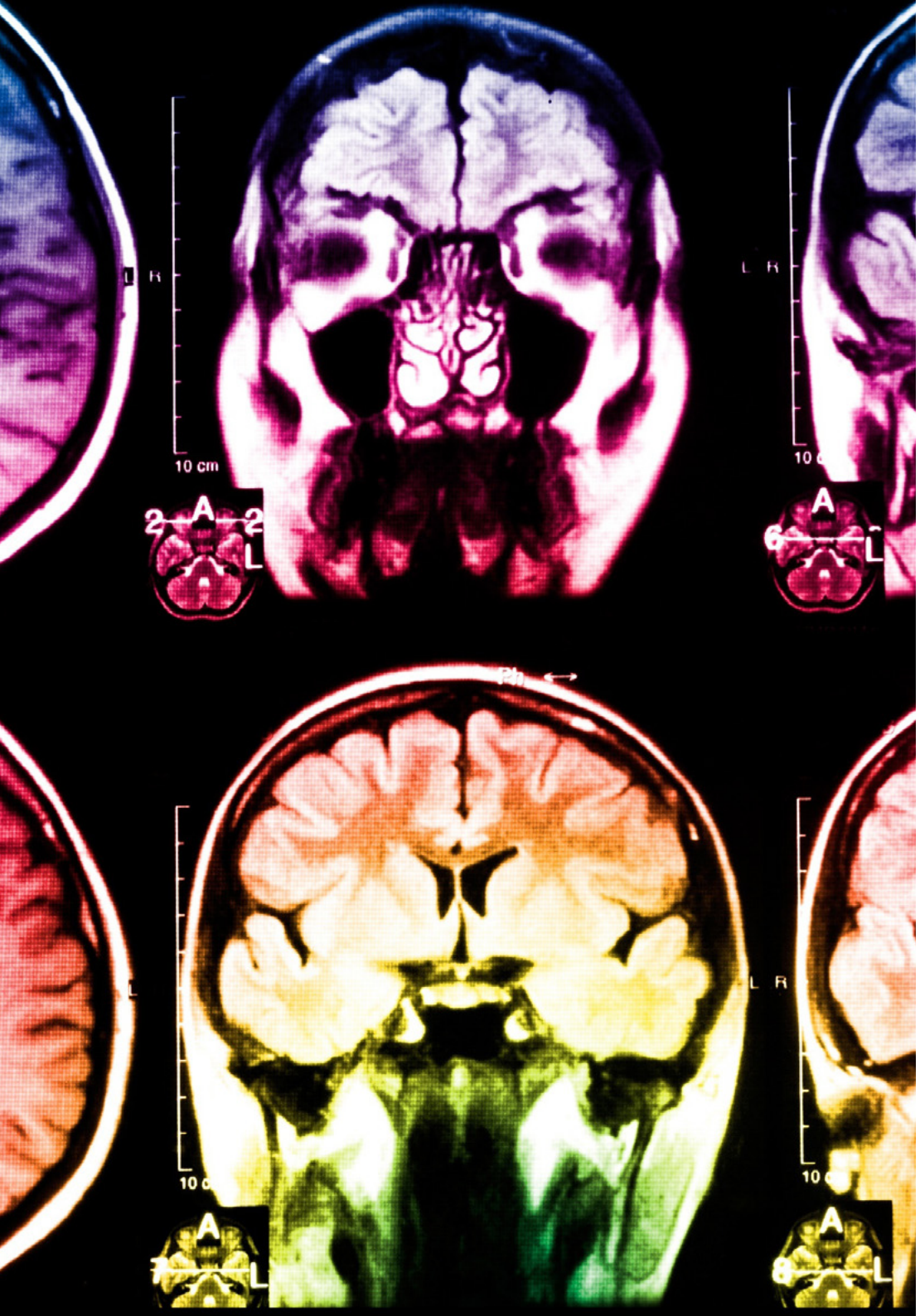
In order to facilitate tutor-student contact as much as possible, you will have a wide range of communication possibilities, both in real time and delayed (internal messaging, telephone answering service, email contact with the technical secretary, chat and videoconferences).

Likewise, this very complete Virtual Campus will allow TECH students to organize their study schedules according to their personal availability or work obligations. In this way, they will have global control of the academic content and teaching tools, based on their fast-paced professional update.

> *The online study mode of this program will allow you to organize your time and learning pace, adapting it to your schedule"*

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.



The university methodology top-rated by its students

The results of this innovative teaching model can be seen in the overall satisfaction levels of TECH graduates.

The students' assessment of the teaching quality, the quality of the materials, the structure of the program and its objectives is excellent. Not surprisingly, the institution became the top-rated university by its students according to the global score index, obtaining a 4.9 out of 5.

Access the study contents from any device with an Internet connection (computer, tablet, smartphone) thanks to the fact that TECH is at the forefront of technology and teaching.

You will be able to learn with the advantages that come with having access to simulated learning environments and the learning by observation approach, that is, Learning from an expert.

As such, the best educational materials, thoroughly prepared, will be available in this program:

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.

This content is then adapted in an audiovisual format that will create our way of working online, with the latest techniques that allow us to offer you high quality in all of the material that we provide you with.

Practicing Skills and Abilities

You will carry out activities to develop specific competencies and skills in each thematic field. Exercises and activities to acquire and develop the skills and abilities that a specialist needs to develop within the framework of the globalization we live in.

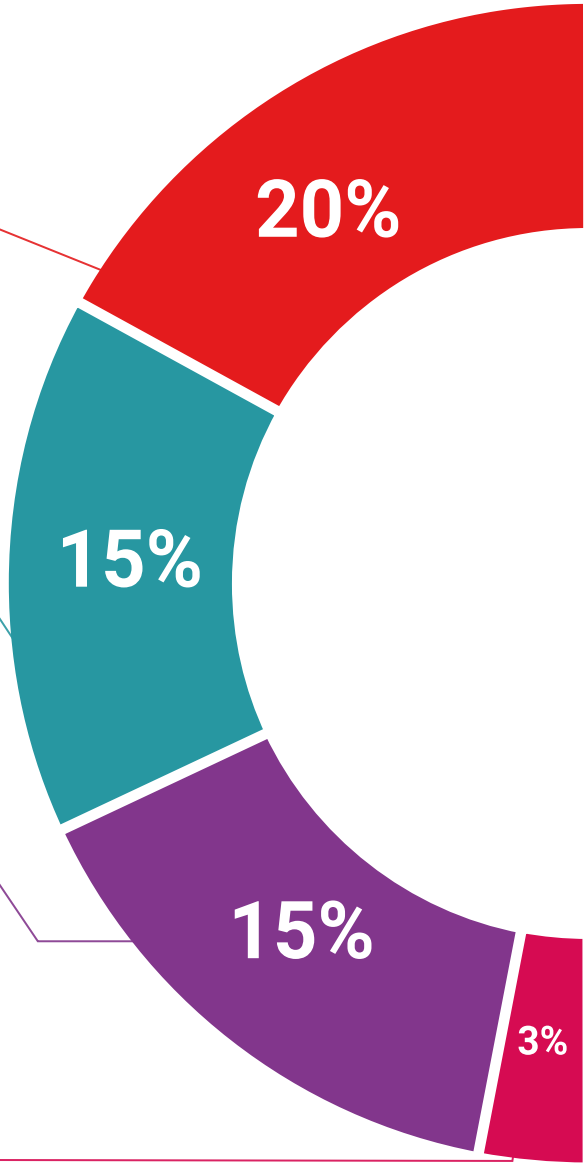
Interactive Summaries

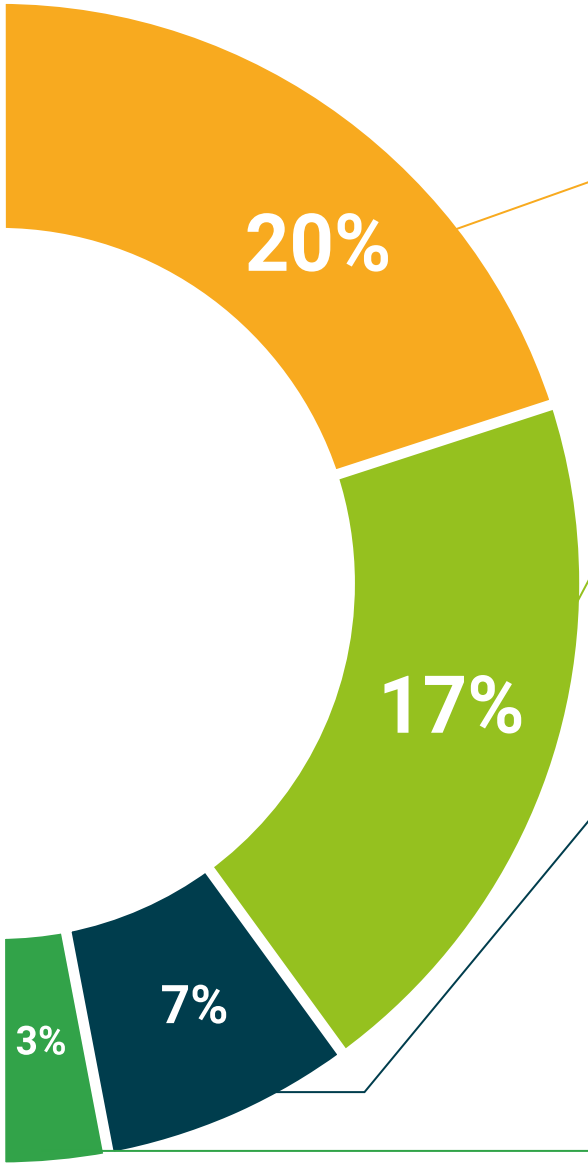
We present the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

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

Additional Reading

Recent articles, consensus documents, international guides... In our virtual library you will have access to everything you need to complete your education.





Case Studies

Students will complete a selection of the best case studies in the field. Cases that are presented, analyzed, and supervised by the best specialists in the world.

Testing & Retesting

We periodically assess and re-assess your knowledge throughout the program. We do this on 3 of the 4 levels of Miller's Pyramid.

Classes

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

Learning from an expert strengthens knowledge and memory, and generates confidence for 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.

05

Certificate

This Postgraduate Diploma in Visual Impairment and Academic Performance for Physicians guarantees students, in addition to the most rigorous and up-to-date education, access to a diploma for the Postgraduate Diploma issued by TECH Global University.

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

This private qualification will allow you to obtain a diploma for the **Postgraduate Diploma in Visual Impairment and Academic Performance for Physicians** endorsed by TECH Global University, the world's largest online university.

TECH Global University, is an official European University publicly recognized by the Government of Andorra ***(official bulletin)***. Andorra is part of the European Higher Education Area (EHEA) since 2003. The EHEA is an initiative promoted by the European Union that aims to organize the international training framework and harmonize the higher education systems of the member countries of this space. The project promotes common values, the implementation of collaborative tools and strengthening its quality assurance mechanisms to enhance collaboration and mobility among students, researchers and academics.

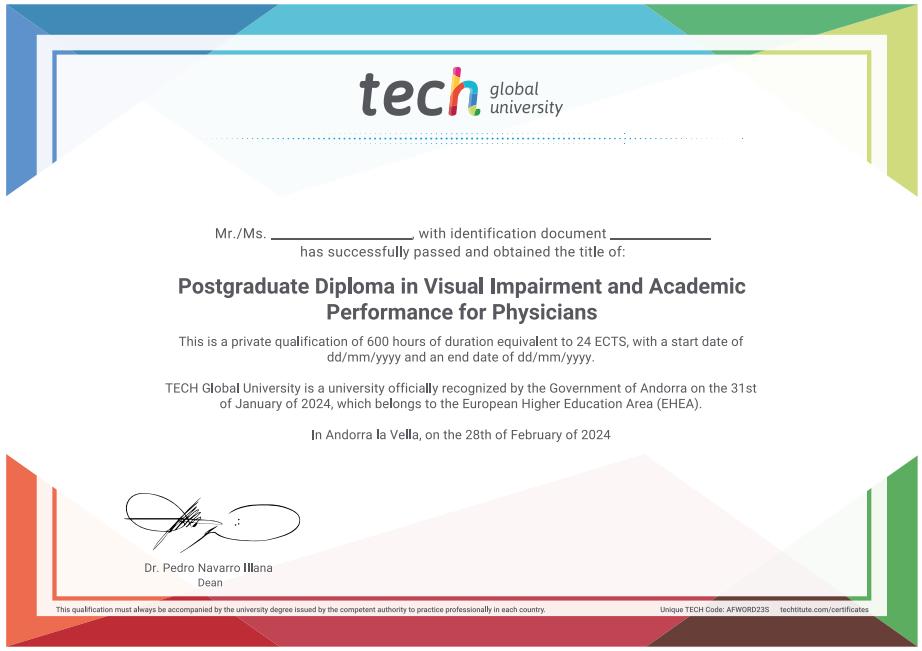
This **TECH Global University** private qualification, is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: **Postgraduate Diploma in Visual Impairment and Academic Performance for Physicians**

Modality: **online**

Duration: **6 months**

Accreditation: **24 ECTS**


tech global university

Mr./Ms. _____, with identification document _____
has successfully passed and obtained the title of:

Postgraduate Diploma in Visual Impairment and Academic Performance for Physicians

This is a private qualification of 600 hours of duration equivalent to 24 ECTS, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy.

TECH Global University is a university officially recognized by the Government of Andorra on the 31st of January of 2024, which belongs to the European Higher Education Area (EHEA).

In Andorra la Vella, on the 28th of February of 2024

Dr. Pedro Navarro Illana
Dean

This qualification must always be accompanied by the university degree issued by the competent authority to practice professionally in each country. Unique TECH Code: AFWORD23S techtitute.com/certificates

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

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