



# Postgraduate Certificate

Visual and Auditory Functionality for Reading, Language, Languages and Learning

» Modality: online

» Duration: 6 weeks

» Certificate: TECH Global University

» Credits: 6 ECTS

» Schedule: at your own pace

» Exams: online

Website: www.techtitute.com/us/education/postgraduate-certificate/visual-auditory-functionality-reading-language-languages-learning

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# tech 06 | Introduction

The work in neuropsychology is complex. It covers a broad spectrum of intervention that requires the professional to have very specific training in the various branches of brain development. This discipline, deeply linked to neurology and the physiological study of the brain, is affected by the changes that the evolution of knowledge in this scientific branch achieves. For professionals, this means an intense challenge of permanent updating that allows them to be at the forefront in terms of the approach, intervention and follow-up of the cases that may arise in their classrooms.

Throughout this training, students will go through all the current approaches in neuropsychology work regarding the different challenges that the profession presents.

The functioning of memory, language, the relationship between laterality and cognitive development, sensoriality and many other aspects, will be the topics of work and study that the student will be able to integrate in their training. A high-level step that will become a process of improvement, not only on a professional level, but also on a personal level.

This challenge is one of TECH Global University's social commitments: to help highly qualified professionals train and develop their personal, social and work skills during the course of their studies.

We will not only take you through the theoretical knowledge we offer, but we will introduce you to another way of studying and learning, one which is simpler, more organic and more efficient. We will work to keep you motivated and to create in you a passion for learning. And we will push you to think and develop critical thinking.

A high level of scientific training, supported by advanced technological development and teaching experience of the best professionals. These are some of its differential qualities:

- The latest technology in online teaching software
- A highly visual teaching system, supported by graphic and schematic contents that are easy to assimilate and understand
- Practical cases presented by practicing experts
- State-of-the-art interactive video systems
- Teaching supported by telepractice
- Continuous updating and recycling systems
- · Autonomous learning: full compatibility with other occupations
- Practical exercises for self-evaluation and learning verification
- Support groups and educational synergies: questions to the expert, debate and knowledge forums
- · Communication with the teacher and individual reflection work
- Availability of content from any device, fixed or portable, with an Internet connection
- Supplementary documentation databases are permanently available, even after the course



A training program created for professionals who aspire for excellence, and that will enable you to acquire new skills and strategies easily and effectively"



Detecting and intervening in auditory and visual difficulties is one of the key processes in the success of neuropsychology work"

Our teaching staff is made up of working professionals. In this way, we ensure that we provide you with the training update we are aiming for. A multidisciplinary team of professors with training and experience in different settings, who will develop theoretical knowledge effectively, but, above all, will bring their practical knowledge derived from their own experience to the course: one of the differential qualities of this Postgraduate Certificate.

This mastery of the subject is complemented by the effectiveness of the methodology used in the design of this course. Developed by a multidisciplinary team of *e-learning* experts, it integrates the latest advances in educational technology. This way, you will be able to study with a range of comfortable and versatile multimedia tools that will give you the operability you need in your training.

The design of this program is based on Problem-Based Learning: an approach that conceives learning as a highly practical process. To achieve this remotely, we will use telepractice learning: with the help of an innovative interactive video system, and learning from an expert, you will be able to acquire the knowledge as if you were actually dealing with the scenario you are learning about. A concept that will allow you to integrate and fix learning in a more realistic and permanent way.

The working methods in modern neuropsychology developed in an intensive and concrete way.

Learning how to work and promote literacy in people with visual and hearing difficulties is key to the work in schools: do not be left behind.







# tech 10 | Objectives



# **General Objectives**

- Qualify professionals for the practice of neuropsychology in education in the development of children and young people
- Learn how to carry out specific programs to improve school performance
- Access the forms and processes of research in neuropsychology in the school environment
- Increase the capacity for work and autonomous resolution of learning processes
- Study the attention to diversity from the neuropsychological approach
- Knowing the different ways to implement enrichment systems of learning methodologies in the classroom, especially aimed at diverse students
- Analyze and integrate the knowledge necessary to foster students' school and social development







### **Specific Objectives**

- Learn about the characteristics and development of the organs of vision.
- Learn about the risk factors
- Learn ways to detect, evaluate and intervene in the classroom with students with vision problems
- Acquire the ability to work for the improvement of visual perception
- Become familiar with vision and reading skill training programs
- Study the saccadic models
- Learn about the characteristics and development of the organs of the ear
- Learn ways to detect, evaluate and intervene in the classroom with students with hearing problems
- · Acquire the ability to work for the improvement of hearing
- Know the psychobiological aspects of hearing loss
- Develop the necessary skills to make curricular adaptations in this area
- Study all the implications of visual and auditory problems on literacy learning

Update your knowledge through the program in invasive application of current in physiotherapy.





# tech 14 | Course Management

### Management



### Ms. Sánchez Padrón, Nuria Ester

- Degree in Psychology from the University of La Laguna
- Postgraduate Certificate in General Health Psychology, University of La Rioja
- Training in Emergency Psychological Care
- Training in Psychological Care in Penitentiary Institutions
- Teaching and training experience
- Experience in educational attention to children at risk







# tech 18 | Structure and Content

# **Module 1.** Visual and Auditory Functionality for Reading, Language, Languages and Learning

- 1.1. Vision: Functioning and Neuropsychological Bases
  - 1.1.1. Introduction
  - 1.1.2. Development of the Visual System at Birth
  - 1.1.3. Risk factors
  - 1.1.4. Development of Other Sensory Systems During Infancy
  - 1.1.5. Influence of Vision on the Visuomotor System and its Development
  - 1.1.6. Normal and Binocular Vision
  - 1.1.7. Anatomy of Human Eyes
  - 1.1.8. Eye Functions
  - 1.1.9. Other Functions
  - 1.1.10. Visual Pathways to the Cerebral Cortex
  - 1.1.11. Elements that Favor Visual Perception
  - 1.1.12. Vision Diseases and Alterations
  - 1.1.13. Most Common Eye Disorders or Diseases: Classroom Interventions
  - 1.1.14. Computer Vision Syndrome (CVS)
  - 1.1.15. Attitudinal Observation of the Student
  - 1.1.16. Summary
  - 1.1.17. Bibliographical References
- 1.2. Visual Perception, Assessment and Intervention Programs
  - 1.2.1. Introduction
  - 1.2.2. Human Development: Sensory Systems Development
  - 1.2.3. Sensory Perception
  - 1.2.4. Neurodevelopment
  - 1.2.5. Description of the Perceptual Process
  - 1.2.6. Color Perception
  - 1.2.7. Perception and Visual Skills
  - 1.2.8. Evaluation of Visual Perception
  - 1.2.9. Intervention for the Improvement of Visual Perception
  - 1.2.10. Summary
  - 1.2.11. Bibliographical References

- 1.3. Tracking Eye Movements
  - 1.3.1. Introduction
  - 1.3.2. Eve Movements
  - 1.3.3. Tracking Eye Movements
  - 1.3.4. Ocular Motility Recording and Assessment
  - 1.3.5. Ocular Motility-Related Disorders
  - 1.3.6. The Visual System and Reading
  - 1.3.7. Development of Skills in Learning to Read
  - 1.3.8. Improvement and Training Programs and Activities
  - 1.3.9. Summary
  - 1.3.10. Bibliographical References
- 1.4. Saccadic Movements and Their Implication in Reading
  - 1.4.1. Introduction
  - 1.4.2. Models of the Reading Process
  - 1.4.3. Saccadic Movements and Their Relation to Reading
  - 1.4.4. How are Saccadic Movements Evaluated?
  - 1.4.5. The Reading Process at the Visual Level
  - 1.4.6. Visual Memory in the Reading Process
  - 1.4.7. Investigations to Study the Relationship Between Visual Memory and Reading
  - 1.4.8. Reading Difficulties
  - 1.4.9. Specialized Teachers
  - 1.4.10. Social Educators
  - 1.4.11. Summary
  - 1.4.12. Bibliographical References
- 1.5. Visual Accommodation and its Relation to Posture in the Classroom
  - 1.5.1. Introduction
  - 1.5.2. Mechanisms that Allow for Accommodation or Focus
  - 1.5.3. How is Visual Accommodation Assessed?
  - 1.5.4. Body Posture in the Classroom
  - 1.5.5. Visual Accommodation Training Programs
  - 1.5.6. Aids for Visually Impaired Students
  - 1.5.7. Summary
  - 1.5.8. Bibliographical References

## Structure and Content | 19 tech

- 1.6. Structure and Function of the Ear
  - 161 Introduction
  - 1.6.2. The World of Sound
  - 1.6.3. Sound and its Propagation
  - 1.6.4. The Auditory Receptors
  - 1.6.5. Ear Structure
  - 1.6.6. Development of the Hearing System at Birth
  - 1.6.7. Development of Sensory Systems during Infancy
  - 1.6.8. Influence of the Ear on Balance Development
  - 1.6.9. Ear Diseases
  - 1.6.10. Summary
  - 1.6.11. Bibliographical References
- 1.7. Auditory Perception
  - 1.7.1. Introduction
  - 1.7.2. Guidelines for Detecting Auditory Perception Problems
  - 1.7.3. The Perceptive Process
  - 1.7.4. Role of the Auditory Pathways in Perceptual Processes
  - 1.7.5. Children with Impaired Auditory Perception
  - 1.7.6. Evaluation Tests
  - 1.7.7. Summary
  - 1.7.8. Bibliographical References
- 1.8. Evaluation of Hearing and its Alterations
  - 1.8.1. Introduction
  - 1.8.2. Evaluation of the External Auditory Canal
  - 1.8.3. Otoscopy
  - 1.8.4. Air Audiometry
  - 1.8.5. Bone Conduction Hearing
  - 1.8.6. Curve of the Pain Threshold
  - 1.8.7. Tone Audiometry, Vocal Audiometry and Acoustic Audiometry
  - 1.8.8. Hearing Impairment: Degrees and Types of Hearing Loss
  - 1.8.9. Causes of Hearing Loss
  - 1.8.10. Psychobiological Aspects of Hearing Impairment
  - 1.8.11. Summary
  - 1.8.12. Bibliographical References

- 1.9. Hearing and Learning Development
  - 1.9.1. Introduction
  - 1.9.2. Development of the Human Ear
  - 1.9.3. Programs, Activities and Games for Auditory Development in Children
  - 1.9.4. Berard Method
  - 1.9.5. Tomatis Method
  - 1.9.6. Visual and Hearing Health
  - 1.9.7. Adaptations of Curricular Elements
  - 1.9.8. Summary
  - 1.9.10. Bibliographical References
- 1.10. Vision and Hearing Processes Involved in Reading
  - 1.10.1. Introduction
  - 1.10.2. Tracking Eye Movements
  - 1.10.3. The Visual System and Reading
  - 1.10.4. Dyslexia
  - 1.10.5. Color-Based Therapies for Dyslexia
  - 1.10.6. Visual Impairment Aids
  - 1.10.7. Summary
  - 1.10.8. Bibliographical References
- 1.11. Relationship Between Vision and Hearing in Language
  - 1.11.1. Introduction
  - 1.11.2. Relationship Between Vision and Hearing
  - 1.11.3. Verbal-Auditory and Visual Information Processing
  - 1.11.4. Intervention Programs for Hearing Disorders
  - 1.11.5. Guidelines for Teachers
  - 1.11.6. Summary
  - 1.11.7. Bibliographical References





# 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 Harvard 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**

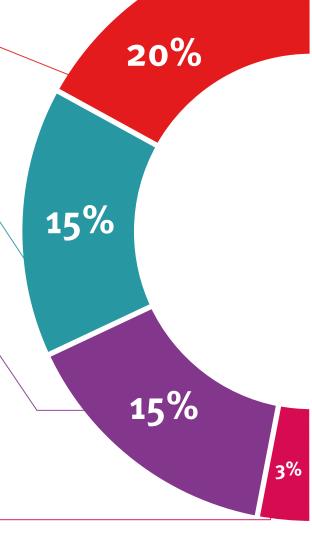
TECH introduces students to the latest techniques, with the latest educational advances, and to the forefront of Education. All this, first-hand, with the maximum rigor, explained and detailed for your assimilation and understanding. And best of all, you can watch them as many times as you want.



### **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.

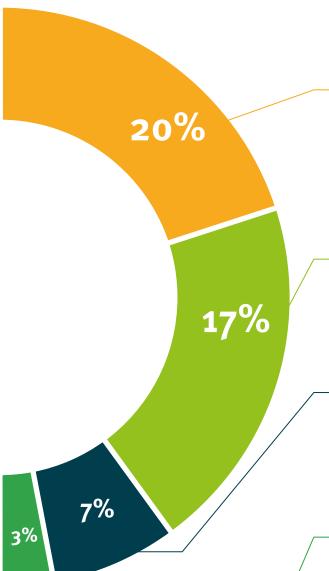
This exclusive multimedia content presentation training Exclusive system was awarded by Microsoft as a "European Success Story".





### **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.



### **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 your goals.



### **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 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 program will allow you to obtain your **Postgraduate Certificate in Visual and Auditory Functionality for Reading, Language, Languages and Learning** 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** title 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 Certificate in Visual and Auditory Functionality for Reading, Language, Languages and Learning

Modality: online

Duration: 6 weeks

Accreditation: 6 ECTS



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

### Postgraduate Certificate in Visual and Auditory Functionality for Reading, Language, Languages and Learning

This is a program of 180 hours of duration equivalent to 6 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



tech global university

# Postgraduate Certificate

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