



# Postgraduate Diploma Neuropsychological Intervention

» 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-neuropsychological-intervention

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06 Certificate





### tech 06 | Introduction

Neuropsychology is a complex field. 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 monitoring of the cases that may arise in their classrooms.

Throughout this program, the student will review all the current approaches to the work carried out by neuropsychologists regarding the different challenges posed by their profession. A high-level step that will represent a process of improvement, not only on a professional level, but also on a personal level.

This challenge is one of TECH Technological 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 simpler, more organic, and efficient. We will work to keep you motivated and to develop a passion for learning within you. Furthermore, we will push you to think and develop critical thinking abilities.

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 practising 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
- Content that is available from any fixed or portable device with an Internet connection
- Supplementary documentation databases are permanently available, even after the course



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



Dyslexia, dyscalculia, ADHD... know all the aspects of therapeutic intervention in the educational context"

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

This mastery of the subject is complemented by the effectiveness of the methodological design of this Postgraduate Diploma. 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 variety of multimedia tools comfortable and versatile 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.

This high intensity program covers all the most advanced intervention programs.







### 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
- Learn about the different ways to implement enrichment systems for learning methodologies in the classroom, especially aimed at diverse students
- Analyze and integrate the knowledge necessary to foster student's school and social development





### **Specific Objectives**

#### Module 1. Developmental Neuropsychology

- Study the neurobiological basis of development
- Explore the principles of differential cognitive functioning
- Develop educational applications of metacognitive regulation and neurobiological markers
- Learn to make a clinical diagnosis based on the knowledge learnt

#### Module 2. Dyslexia, Dyscalculia and Hyperactivity

- Acquire all the knowledge related to dyslexia, dyscalculia and ADHD
- Learn how to detect and recognize the needs of children in the classroom
- Learn how to design and implement intervention programs aimed at improving difficulties
- Understand the complications in academic development caused by dyslexia, dyscalculia and ADHD
- Gain knowledge of the latest advances in the assessment, diagnosis and treatment of learning disabilities and ADHD

#### Module 3. Neurolinguistic Processes, Difficulties and Intervention Programs

- Acquire knowledge related to the neuropsychological and neurobiological processes of language
- Gain knowledge of how language evolves with age
- Differentiate all brain areas and nuclei involved in language acquisition, comprehension and processing
- Distinguish all language disorders and difficulties, their assessment, diagnosis and treatment
- Learn how to improve and prevent language-related problems



This Postgraduate Diploma is the best way to get you up to date on the bioethical aspects to provide the palliative care that your patients need"





### 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. Developmental Neuropsychology

- 1.1. Neurobiological Basis of Development
  - 1.1.1. Introduction
  - 1.1.2. Developmental Neurobiology
- 1.2. Differential Cognitive Functioning
  - 1.2.1. Definition
  - 1.2.2. Description
- 1.3. Metacognitive Regulation
  - 1.3.1. Definition
  - 1.3.2. Development and Intervention
- 1.4. Endophenotypes or Neurobiological Markers
  - 1.4.1. Definition
  - 1.4.2. Characteristics and Epistemology
- 1.5. Contributions to Clinical Diagnosis
  - 1.5.1. Applicable Developments
- 1.6. Neuroeducation Applications
  - 1.6.1. Plasticity and Brain Development
    - 1.6.1.1. Critical Periods
    - 1.6.1.2. Sensitive Periods
  - 1.6.2. Cerebral Learning Models
  - 1.6.3. Cognitive Processing and Learning
    - 1.6.3.1. Perception
    - 1.6.3.2. Attention
    - 1.6.3.3. Operative Memory
    - 1.6.3.4. Reasoning
    - 1.6.3.5. Language and Brain
    - 1.6.3.6. Bilingualism and Brain Development
    - 1.6.3.7. Neurolinguistic Programming NLP
    - 1.6.3.8. Literacy
  - 1.6.4. Maturation of the Prefrontal Cortex
  - 1.6.5. Psychomotor Skills
  - 1.6.6. Emotions and Learning

#### Module 2. Dyslexia, Dyscalculia and Hyperactivity

- 2.1. History of Learning Difficulties
  - 2.1.1. Introduction
  - 2.1.2. Definition of Learning Difficulties
  - 2.1.3. Historical Development
  - 2.1.4. Current Learning Difficulties
  - 2.1.5. Neuropsychology of Learning Difficulties
  - 2.1.6. Causes of Learning Difficulties
  - 2.1.7. Classification of Learning Difficulties
  - 2.1.8. Summary
  - 2.1.9. Bibliographical References
- 2.2. Conceptualization of Dyslexia
  - 2.2.1. Introduction
  - 2.2.2. Definition
  - 2.2.3. Neuropsychological Bases
  - 2.2.4. Features
  - 2.2.5. Subtypes
  - 2.2.6. Summary
  - 2.2.7. Bibliographical References
- 2.3. Neuropsychological Assessment of Dyslexia
  - 2.3.1. Introduction
  - 2.3.2. Diagnostic Criteria for Dyslexia
  - 2.3.3. How to Assess
  - 2.3.4. Interview with the Tutor
  - 2.3.5. Reading and Writing
  - 2.3.6. Neuropsychological Assessment
  - 2.3.7. Assessment of Other Related Aspects
  - 2.3.8. Summary
  - 2.3.9. Bibliographical References



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- 2.4. Neuropsychological Intervention of Dyslexia
  - 2.4.1. Introduction
  - 2.4.2. Variables Involved
  - 2.4.2. Neuropsychological Field
  - 2.4.3. Intervention Programs
  - 2.4.4. Summary
  - 2.4.5. Bibliographical References
- 2.5. Conceptualization of Dyscalculia
  - 2.5.1. Introduction
  - 2.5.2. Definition of Dyscalculia
  - 2.5.3. Features
  - 2.5.4. Neurophysiological Basis
  - 2.5.5. Summary
  - 2.5.6. Bibliographical References
- 2.6. Neuropsychological Assessment of Dyscalculia
  - 2.6.1. Introduction
  - 2.6.2. Assessment Objectives
  - 2.6.3. How to Assess
  - 2.6.4. Report
  - 2.6.5. Diagnosis
  - 2.6.6. Summary
  - 2.6.7. Bibliographical References
- 2.7. Neuropsychological Interventions of Dyscalculia
  - 2.7.1. Introduction
  - 2.7.2. Variables Involved in the Treatment
  - 2.7.3. Neuropsychological Rehabilitation
  - 2.7.4. Intervention in Dyscalculia
  - 2.7.5. Summary
  - 2.7.6. Bibliographical References

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	2.8.1.	Introduction		
	2.8.2.	Definition of ADHD		
	2.8.3.	Neuropsychological Bases		
	2.8.4.	Characteristics of Children with ADHD		
	2.8.5.	Subtypes		
	2.8.6.	Summary		
	2.8.7.	Bibliographical References		
2.9.				
	2.9.1.	Introduction		
	2.9.2.	Assessment Objectives		
	2.9.3.	How to Assess		
	2.9.4.	Report		
	2.9.5.	Diagnosis		
	2.9.6.	Summary		
	2.9.7.	Bibliographical References		
2.10.	Neurop	sychological Interventions of ADHD		
	2.10.1.	Introduction		
	2.10.2.	Neuropsychological Field		
	2.10.3.	Treatment of ADHD		
	2.10.4.	Other Therapies		
	2.10.5.	Intervention Programs		
	2.10.6.	Summary		
	2.10.7.	Bibliographical References		
2.11.	Comorbidity in Neurodevelopmental Disorders			
	2.11.1.	Introduction		
	2.11.2.	Neurodevelopment Disorders		
	2.11.3.	Dyslexia and Dyscalculia		
	2.11.4.	Dyslexia and ADHD		
	2.11.5.	Dyscalculia and ADHD		
	2.11.6.	Summary		
	2.11.7.	Bibliographical References		

2.12.	Neurotechnology				
	2.12.1.	Introduction			
	2.12.2.	Applied to Dyslexia			
	2.12.3.	Applied to Dyscalculia			
	2.12.4.	Applied to ADHD			
	2.12.5.	Summary			
	2.12.6.	Bibliographical References			
2.13.	Guidance for Parents and Teachers				
	2.13.1.	Introduction			
	2.13.2.	Guidance on Dyslexia			
	2.13.3.	Guidance on Dyscalculia			
	2.13.4.	Guidance on ADHD			

#### Module 3. Neurolinguistic Processes, Difficulties and Intervention Programs

3.1.	Neurobiological Basis Involved in Language

2.13.6. Bibliographical References

3.1.1. Introduction

2.13.5. Summary

- 3.1.2. Language Definitions
- 3.1.3. Historical Background
- 3.1.4. Summary
- 3.1.5. Bibliographical References
- 3.2. Language Development
  - 3.2.1. Introduction
  - 3.2.2. Appearance of Language
  - 3.2.3. Acquisition of Language
  - 3.2.4. Summary
  - 3.2.5. Bibliographical References
- 3.3. Neuropsychological Approaches to Language
  - 3.3.1. Introduction
  - 3.3.2. Brain Processes of Language
  - 3.3.3. Brain Areas Involved

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	3.3.5.	Brain Centers Involved in Comprehension
	3.3.6.	Summary
	3.3.7.	Bibliographical References
3.4.	Neurop	psychology of Language Comprehension
	3.4.1.	Introduction
	3.4.2.	Brain Areas Involved in Comprehension
	3.4.3.	Sounds
	3.4.4.	Syntactic Structures for Linguistic Comprehension
	3.4.5.	Semantic Processes and Meaningful Learning
	3.4.6.	Reading Comprehension
	3.4.7.	Summary
	3.4.8.	Bibliographical References
3.5.	Comm	unication Through Language
	3.5.1.	Introduction
	3.5.2.	Language as a Tool for Communication
	3.5.3.	Evolution of Language
	3.5.4.	Social Communication
	3.5.5.	Summary
	3.5.6.	Bibliographical References
3.6.	Langua	age Disorders
	3.6.1.	Introduction
	3.6.2.	Speech and Language Disorders
	3.6.3.	Professionals Involved in the Treatment
	3.6.4.	Classroom Implications
	3.6.5.	Summary
	3.6.6.	Bibliographical References
3.7.	Aphasi	a
	3.7.1.	Introduction
	3.7.2.	Types of Aphasia
	3.7.3.	Diagnosis

3.3.4. Neurolinguistic processes

	3.7.5.	Summary		
	3.7.6.	Bibliographical References		
3.8.	Language Stimulation			
	3.8.1.	Introduction		
	3.8.2.	Importance of Language Stimulation		
	3.8.3.	Phonetic-Phonological Stimulation		
	3.8.4.	Lexical-Semantic Stimulation		
	3.8.5.	Morphosyntactic Stimulation		
	3.8.6.	Pragmatic Stimulation		
	3.8.7.	Summary		
	3.8.8.	Bibliographical References		
3.9.	Reading	g and Writing Disorders		
	3.9.1.	Introduction		
	3.9.2.	Delayed Reading		
	3.9.3.	Dyslexia		
	3.9.4.	Dysorthographia		
	3.9.5.	Dysgraphia		
	3.9.6.	Dyslalia		
	3.9.7.	Treatment of Reading and Writing Disorders		
	3.9.8.	Summary		
	3.9.9.	Bibliographical References		
3.10.	Evaluation and Diagnosis of Language Difficulties			
	3.10.1.	Introduction		
	3.10.2.	Language Evaluation		
	3.10.3.	Language Assessment Procedures		
	3.10.4.	Psychological Tests for Assessing Languag		
	3.10.5.	Summary		
	3.10.6.	Bibliographical References		

3.7.4. Assessment

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3	1	1	Intervention	in	Language	Disorders
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- 3.11.1. Introduction
- 3.11.2. Implementation of Improvement Programs
- 3.11.3. Improvement Programs
- 3.11.4. Improvement Programs Using New Technologies
- 3.11.5. Summary
- 3.11.6. Bibliographical References

#### 3.12. Incidence of Language Difficulties on Academic Performance

- 3.12.1. Introduction
- 3.12.2. Linguistic Processes
- 3.12.3. Incidence of Language Disorders
- 3.12.4. Relationship Between Hearing and Language
- 3.12.5. Summary
- 3.12.6. Bibliographical References
- 3.13. Guidance for Parents and Teachers
  - 3.13.1. Introduction
  - 3.13.2. Language Stimulation
  - 3.13.3. Reading Stimulation
  - 3.13.4. Summary
  - 3.13.5. Bibliographical References







A complete training that will take you through the knowledge you need to compete among the best"





### tech 26 | 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 28 | 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 | 29 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 30 | 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 adapted in 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**

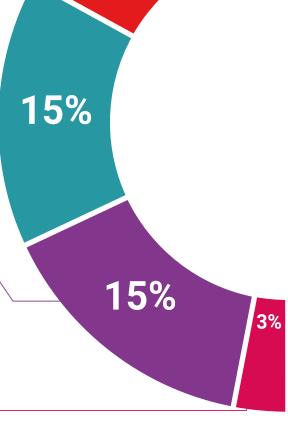
TECH introduces students to the latest techniques, with the latest educational advances, and to the forefront of Education. All this, first-hand, with the maximum rigor, explained and detailed for your assimilation and understanding. And best of all, students can watch them as many times as they want.



#### **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 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.



### **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 suggesting that observing third-party experts can be useful.

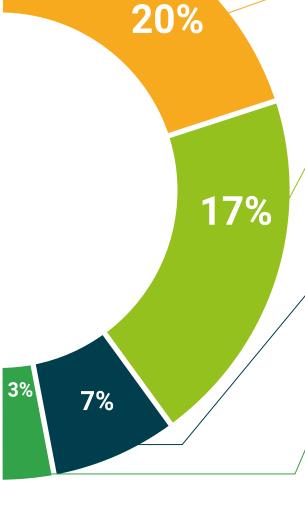
Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.



#### **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 34 | Certificate

This **Postgraduate Diploma in Neuropsychological Intervention** contains the most complete and up-to-date program 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 Neuropsychological Intervention**Official N° of hours: **450 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.

Postgraduate Diploma



## Neuropsychological Intervention

- » Modality: online
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- » Exams: online

