Postgraduate Diploma Cognitive Neuropsychology





# **Postgraduate Diploma** Cognitive Neuropsychology

- » Modality: online
- » Duration: 6 months
- » Certificate: TECH Technological University
- » Dedication: 16h/week
- » Schedule: at your own pace
- » Exams: online

Website: www.techtitute.com/pk/nursing/postgraduate-diploma/postgraduate-diploma-cognitive-neuropsychology

# Index



# 01 Introduction

Cognitive Neuropsychology is key in the development of treatments for brain damage and neurodegenerative diseases. The difficulty in intervening in these cases makes it necessary to turn to medical technology in the search for effective treatments. An example of this is Alzheimer's or Parkinson's, very specific pathogenic diseases that continually mutate and develop in a specific way in each patient. It is the application of technology that forces healthcare centers to have specific and qualified personnel who can put it into practice. For this reason, TECH offers a complete and dynamic program with a 100% online format, so that graduates can expand their knowledge in the area and do so with all the facilities to update their knowledge and get up to date in this clinical area of interest.



Boost your professional healthcare career and be part of the recovery of patients with neurodegenerative diseases thanks to this Postgraduate Diploma"

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## tech 06 | Introduction

Some advances in Cognitive Neuropsychology have been achieved thanks to novel techniques such as electroencephalography, neuroimaging and neuropsychological tests that measure the psychological and functional performance of the brain. These strategies have led to alternative surgical treatments to treat diseases such as schizophrenia or autism. It is a discipline that continues to expand and perfect its applications, but, above all, demanding experts in the field who can respond with a specialized and highly focused service in the most modern Neuropsychology.

TECH offers an intensive program over a period of 6 months that will provide graduates with all the information they need to master the new issues of this discipline. By taking the Postgraduate Diploma, nurses will delve into the principles of Cognitive Neuropsychology, as well as the principles of neuropsychological and behavioral disorders of genetic origin, with special emphasis on aphasia, agraphia and alexia, and cognitive deficits. It will also delve into the principles and origin of mixed transcortical, as well as psychological disorders associated with pathological aging. Finally, it will focus on the main techniques of neuropsychological assessment and rehabilitation, in order to provide an exhaustive review of treatments and their future prospects.

All of this through a 100% online program, which is developed over 600 hours of theoretical-practical and additional material, selected and designed in detail by the teaching team. Likewise, the qualification is a dynamic and simple experience thanks to its various digital formats. It's developed based on downloadable content, so the student only needs a device with an Internet connection. In addition, the materials will be available even after the program has been completed.

This **Postgraduate Diploma in Cognitive Neuropsychology** contains the most complete and up-to-date scientific program on the market. The most important features include:

- The development of practical cases presented by experts in Nursing and Cognitive Neuropsychology
- 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 self-assessment can be used 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

Analyze cognitive rehabilitation systems to apply clinical technology in conditions such as olfactory agnosias, asonosognia and asomatognosia"

## Introduction | 07 tech

A program designed by experts in Neuropsychology for you to adopt the most appropriate action for each real case you face, thanks to an up-to-date knowledge of ASD"

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

Its multimedia content, developed with the latest educational technology, will allow professionals to learn in a contextual and situated learning environment, i.e., a simulated environment that will provide immersive education programmed to prepare in real situations.

The design of this program focuses on problem-based learning, by means of which the professional must try to solve the different professional practice situations that arise throughout the academic program. For this purpose, the student will be assisted by an innovative interactive video system created by renowned and experienced experts. A program that will make you an expert in the alterations of the level of consciousness and its most common symptoms so that you can identify them quickly.

Be a multidisciplinary nurse studying in depth the pathologies in attention and memory, as well as the Dysexecutive Syndrome.

# 02 **Objectives**

The improvement in the quality of life of patients thanks to the latest research in cognitive neuropsychological disorders such as Alzheimer's or Parkinson's, has given weight to the studies of Cognitive Neuropsychology. This discipline is gaining importance as cases multiply. As brain damage is treated, rapid diagnosis becomes more complicated, so that today's clinicians rely, in large part, on integrated technology, such as neuroimaging. For this reason, TECH has developed this Postgraduate Diploma, so that nursing specialists can learn in detail the most recent and effective developments in this science. A study that will perform quickly and easily delving into neuropsychology and the keys to their understanding.

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A program that will allow you to explore early brain injury and learn about the latest strategies for treating childhood brain injury"

# tech 10 | Objectives



- Know in detail the latest developments related to the advances that have been made in the field of Cognitive Neuropsychology
- Delve in a specialized way into Neuropsychology and the keys to its understanding
- Develop a broad and comprehensive knowledge of aphasia, agraphia and alexia

Delve into the functioning of aphasia, agraphia and alexia, thanks to TECH and its facilities for you to access 100% online content, quickly and easily"









### **Specific Objectives**

### Module 1. Cognitive Functions

- Get to know the most important cognitive functions
- Know and contextualize the neurobiological principles of the cognitive functions
- Gain the knowledge about the principles and origins of cognitive functions

### Module 2. Brain Injury

- Know and contextualize the principles of brain injury
- Get to know and differentiate between the different types of brain injury
- Learn the different disorders derived from brain injury

### Module 3. Aphasias, Agraphias and Alexias

- Know and internalize the priciniples of aphasias, agraphias and alexias
- Gain knowledge about the classification and characteristics specific to aphasias, agraphias and alexias
- Get to know the assessment and diagnosis of aphasias, agraphias and alexias

### Module 4. Cognitive Deficiencies

- Know and contextualize the different cognitive deficiencies
- Classify the cognitive deficiencies according to their symptoms

# 03 Structure and Content

The content of this Postgraduate Diploma has been developed in detail by professionals versed in Nursing and Neuropsychology to offer a quality syllabus. TECH has not only taken into account the theoretical instruction of knowledge, but has also selected a teaching team that has extensive experience in clinical centers, so that they can share it with nurses who enroll in the program. In addition, it applies the effective and innovative Relearning methodology, which facilitates the progressive and simple assimilation of the contents without long hours of study. All this in order to offer an educational experience that adapts to the needs of the most demanding specialists.

Thanks to this program you will be able to investigate the neurobiological foundations of memory to understand in depth the functioning of cognitive development"

### Module 1. Cognitive Functions

- 1.1. Neurological Principles of Attention
  - 1.1.1. Introduction to the Concept of Attention
  - 1.1.2. Neurobiological Principles and Foundations of Attention
- 1.2. Neurobiological Principles of Memory
  - 1.2.1. Introduction to the Concept of Memory
  - 1.2.2. Neurobiological Principles and Foundations of Memory
- 1.3. Neurological Principles of Language
  - 1.3.1. Introduction to the Concept of Language
  - 1.3.2. Neurobiological Principles and Foundations of Language
- 1.4. Neurobiological Principles of Perception
  - 1.4.1. Introduction to the Concept of Perception
  - 1.4.2. Neurobiological Principles and Foundations of Perception
- 1.5. Visuospatial Neurobiological Principles
  - 1.5.1. Introduction to Visuospatial Functions
  - 1.5.2. Principles and Fundamentals of Visuospatial Functions
- 1.6. Neurobiological Principles of Executive Functions
  - 1.6.1. Introduction to Executive Functions
  - 1.6.2. Principles and Fundamentals of Executive Functions
- 1.7. Apraxias
  - 1.7.1. What is Praxis?
  - 1.7.2. Features and Types
- 1.8. Gnosis
  - 1.8.1. What is Praxis?
  - 1.8.2. Features and Types
- 1.9. Social Cognition
  - 1.9.1. Introduction to Social Cognition
  - 1.9.2. Characteristics and Theoretical Foundations

### Module 2. Brain Injury

- 2.1. Neuropsychological and Behavior Disorders of Genetic Origin
  - 2.1.1. Introduction
  - 2.1.2. Genes, Chromosomes and Hereditary
  - 2.1.3. Genes and Behavior
- 2.2. Early Brain Injury Disorder
  - 2.2.1. Introduction
  - 2.2.2. The Brain in Early Childhood
  - 2.2.3. Pediatric Cerebral Palsy
  - 2.2.4. Psychosyndromes
  - 2.2.5. Learning Disorders
  - 2.2.6. Neurobiological Disorders that Affect Learning
- 2.3. Vascular Brain Disorders
  - 2.3.1. Introduction to Cerebrovascular Disorders
  - 2.3.2. Most Common Types
  - 2.3.3. Characteristics and Symptomology
- 2.4. Brain Tumors
  - 2.4.1. Introduction to Brain Tumors
  - 2.4.2. Most Common Types
  - 2.4.3. Characteristics and Symptomology
- 2.5. Cranioencephalic Traumas
  - 2.5.1. Introduction to Trauma
  - 2.5.2. Most Common Types
  - 2.5.3. Characteristics and Symptomology
- 2.6. Infections of the CNS
  - 2.6.1. Introduction the CNS Infections
  - 2.6.2. Most Common Types
  - 2.6.3. Characteristics and Symptomology

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- 2.7. Epileptic Disorders
  - 2.7.1. Introduction to Epileptic Disorders
  - 2.7.2. Most Common Types
  - 2.7.3. Characteristics and Symptomology
- 2.8. Alterations in the Level of Consciousness
  - 2.8.1. Introduction to Altered Levels of Consciousness
  - 2.8.2. Most Common Types
  - 2.8.3. Characteristics and Symptomology
- 2.9. Acquired Brain Injury
  - 2.9.1. Concept of Acquired Brain Injury
  - 2.9.2. Most Common Types
  - 2.9.3. Characteristics and Symptomology
- 2.10. Disorders Related to Pathological Ageing
  - 2.10.1. Introduction
  - 2.10.2. Psychological Disorders Related to Pathological Ageing

#### Module 3. Aphasias, Agraphias and Alexias

- 3.1. Broca's Aphasia
  - 3.1.1. Principles and Origin of Broca's Aphasia
  - 3.1.2. Characteristics and Symptomology
  - 3.1.3. Assessment and Diagnosis
- 3.2. Wernicke's Aphasia
  - 3.2.1. Basis and Origin of Wernicke's Aphasia
  - 3.2.2. Characteristics and Symptomology
  - 3.2.3. Assessment and Diagnosis
- 3.3. Conduction Aphasia
  - 3.3.1. Basis and Origin of Conduction Aphasia
  - 3.3.2. Characteristics and Symptomology
  - 3.3.3. Assessment and Diagnosis

- 3.4. Global Aphasia
  - 3.4.1. Basis and Origin of Global Aphasia
  - 3.4.2. Characteristics and Symptomology
  - 3.4.3. Assessment and Diagnosis
- 3.5. Sensory Transcortical Aphasia
  - 3.5.1. Principles and Origin of Broca's Aphasia
  - 3.5.2. Characteristics and Symptomology
  - 3.5.3. Assessment and Diagnosis
- 3.6. Motor Transcortical Aphasia
  - 3.6.1. Basis and Origin of Motor Transcortical Aphasia
  - 3.6.2. Characteristics and Symptomology
  - 3.6.3. Assessment and Diagnosis
- 3.7. Mixed Transcortical Aphasia
  - 3.7.1. Basis and Origin of Mixed Transcortical Aphasia
  - 3.7.2. Characteristics and Symptomology
  - 3.7.3. Assessment and Diagnosis
- 3.8. Anomic Aphasia
  - 3.8.1. Basis and Origin of Anomic Aphasia
  - 3.8.2. Characteristics and Symptomology
  - 3.8.3. Assessment and Diagnosis
- 3.9. Agraphias
  - 3.9.1. Basis and Origin of Agraphias
  - 3.9.2. Characteristics and Symptomology
  - 3.9.3. Assessment and Diagnosis
- 3.10. Alexias
  - 3.10.1. Basis and Origin of Alexias
  - 3.10.2. Characteristics and Symptomology
  - 3.10.3. Assessment and Diagnosis

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### Module 4. Cognitive Deficiencies

- 4.1. Attention Pathology
  - 4.1.1. Main Attention Pathologies
  - 4.1.2. Characteristics and Symptomology
  - 4.1.3. Assessment and Diagnosis
- 4.2. Memory Pathology
  - 4.2.1. Main Memory Pathologies
  - 4.2.2. Characteristics and Symptomology
  - 4.2.3. Assessment and Diagnosis
- 4.3. Dysexecutive Syndrome
  - 4.3.1. What is Dysexecutive Syndrome?
  - 4.3.2. Characteristics and Symptomology
  - 4.3.3. Assessment and Diagnosis
- 4.4. Apraxias I
  - 4.4.1. Concept of Apraxia
  - 4.4.2. Main Modalities
    - 4.4.2.1. Ideomotor Apraxia 4.4.2.2. Ideational Apraxia
    - 4.4.2.3. Constructional Apraxia
    - 4.4.2.4. Clothing Apraxia
- 4.5. Apraxias II
  - 4.5.1. Gait Apraxia
  - 4.5.2. Apaxia of Speech or Phonation
  - 4.5.3. Optical Apraxia
  - 4.5.4. Callosal Apraxia
  - 4.5.5. Examination of the Apraxias:4.5.5.1. Neuropsychological Assessment4.5.5.2. Cognitive Rehabilitation





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- 4.6. Agnosias I
  - 4.6.1. Concept of Agnosias
  - 4.6.2. Visual Agnosias
    - 4.6.2.1. Agnosia for Objects
    - 4.6.2.2. Simultanagnosia
    - 4.6.2.3. Prospagnosia
    - 4.6.2.4. Chromatic Agnosia
    - 4.6.2.5. Others
  - 4.6.3. Auditory Agnosias4.6.3.1. Amusia4.6.3.2. Agnosia for Sounds4.6.3.3. Verbal Agnosia
  - 4.6.4. Somatosensory Agnosias 4.6.4.1. Asteroganosia 4.6.4.2. Tactile Agnosia
- 4.7. Agnosias II
  - 4.7.1. Olfactory Agnosias
  - 4.7.2. Agnosia in Diseases4.7.2.1. Anosognosia4.7.2.2. Asomatognosia
  - 4.7.3. Assessment of Agnosias
  - 4.7.4. Cognitive Rehabilitation
- 4.8. Social Cognition Deficit
  - 4.8.1. Introduction to Social Cognition
  - 4.8.2. Characteristics and Symptomology
  - 4.8.3. Assessment and Diagnosis
- 4.9. Autism Spectrum Disorders
  - 4.9.1. Introduction
  - 4.9.2. ASD Diagnosis
  - 4.9.3. Cognitive and Neuropsychological Profile Associated with ASD

# 04 **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.

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"

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

In a given situation, what should a professional do? 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. Nurses learn better, faster, and more sustainably over time.

With TECH, nurses can experience a learning methodology 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, in an attempt to recreate the real conditions in professional nursing practice.

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. Nurses 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 has a clear focus on practical skills that allow the nursing professional to better integrate knowledge acquisition into the hospital setting or primary care.
- 3. Ideas and concepts are understood more efficiently, given that the example situations are based on real-life.
- 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 22 | Methodology

### **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 case studies with a 100% online learning system based on repetition combining a minimum of 8 different elements in each lesson, which is a real revolution compared to the simple study and analysis of cases.

> The nurse 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 | 23 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 175,000 nurses with unprecedented success in all specialities regardless of practical workload. 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.



## tech 24 | Methodology

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 really specific and precise.

20%

15%

3%

15%

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.



#### **Nursing Techniques and Procedures on Video**

We introduce you to the latest techniques, to the latest educational advances, 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 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 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.

## Methodology | 25 tech



### **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.

20%

3%

7%

17%



### **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.

# 05 **Certificate**

The Postgraduate Diploma in Cognitive Neuropsychology 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"

## tech 28 | Certificate

This **Postgraduate Diploma in Cognitive Neuropsychology** 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 Cognitive Neuropsychology Official N° of hours: 600 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.

technological university

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