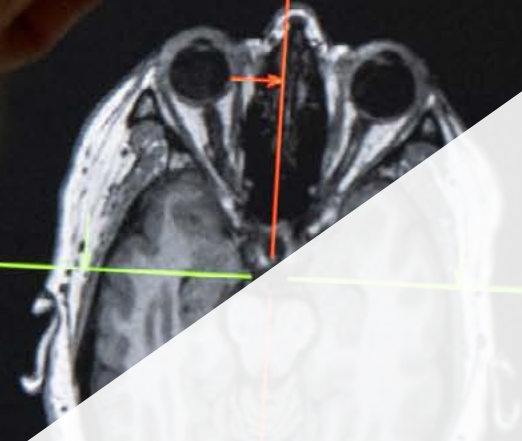
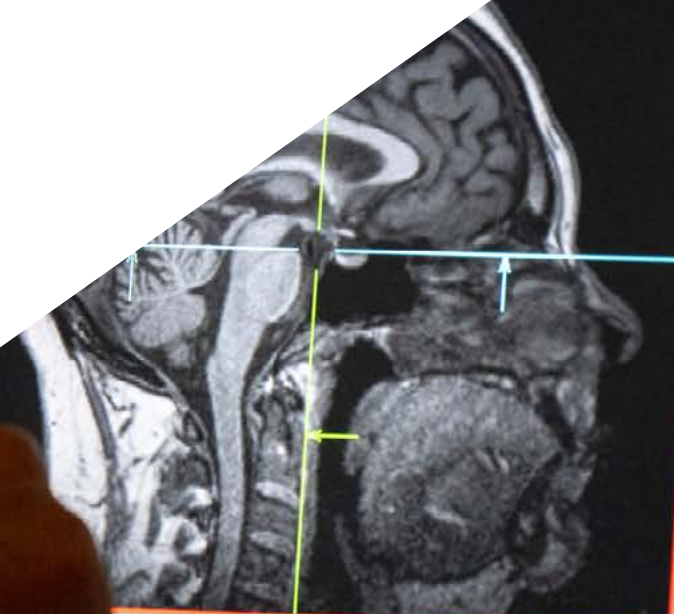


# Postgraduate Diploma

## Psychoneuroimmunoendocrinology





## Postgraduate Diploma

### Psychoneuroimmunoendocrinology

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

Website: [www.techtute.com/pk/nursing/postgraduate-diploma/postgraduate-diploma-psychoneuroimmunoendocrinology](http://www.techtute.com/pk/nursing/postgraduate-diploma/postgraduate-diploma-psychoneuroimmunoendocrinology)

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# 01

# Introduction

Psychoneuroimmunoendocrinology (PNIE) is one of the most complex health disciplines due to the different organisms it encompasses. Thanks to the interrelation of the different systems of the organism (psychological, nervous, immune and endocrine), this science has helped us to learn how mental disorders also affect the physique of those who suffer from them. Given the infinite field of research into brain diseases and their increase in recent years, the healthcare market depends on experts who know the most effective strategies to treat the possible complications arising from borderline mental situations. For this reason, TECH offers a program that will provide all the necessary tools for nurses to expand their healthcare knowledge towards PNIE with a complete and comfortable teaching, through a 100% online modality that adjusts to their needs.





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*Learn in detail the latest developments in Psychoneuroimmunoendocrinology from wherever you are, thanks to this 100% online program with no fixed schedules”*

Since the end of the 20th century, Psychoneuroimmunoendocrinology has been gaining more importance in the therapeutic strategies of integrative and complementary medicine. Advances in science have shown that there is a substantial connection between the immune system, behavior, the central nervous system and the endocrine system. For this reason, TECH offers a qualification to broaden the health knowledge of nursing graduates who wish to focus on this field of study in a rigorous manner and with quality content.

TECH's technological and current approach brings specialists closer to their objectives, through a program based on the experience of its teachers. This team of experts in Nursing and Psychoneuroimmunoendocrinology has been carefully selected so that students learn from those who face real cases on a daily basis. In addition, nurses enrolled in the program will have at their disposal the personalized and individual tutorials of the teachers to resolve all questions about the subject. In this way, students will delve into the basics of neuropsychology, as well as the principles of functional neuroanatomy in order to apply it in their professional practice.

Thanks to this 100% online qualification, graduates will be able to implement the best strategies in the management of patients with various psychological pathologies in their healthcare career. For this purpose, they will have a Virtual Classroom available 24 hours a day, which can be accessed from any device with an Internet connection and even offline once the contents have been downloaded. The syllabus is available in different formats and is complemented with research articles, detailed videos, dynamic summaries and images to contextualize the information and go deeper into each section in a personalized way.

This **Postgraduate Diploma in Psychoneuroimmunoendocrinology** 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 Clinical 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



*A complete qualification that includes, from the introduction to Neuropsychology, to the exhaustive development of functional neuroanatomy"*

“

*You will have downloadable materials that you can consult without an Internet connection and even after completing the program, so that you can continue to experience an ongoing development of your professional career”*

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 professionals must try to solve the different professional practice situations that are presented to them throughout the academic year. For this purpose, the student will be assisted by an innovative interactive video system created by renowned and experienced experts.

*You will delve into the specialization of the nervous system to perfectly understand the latest developments related to electrical and chemical synapses in just 6 months.*

*With this Postgraduate Diploma, you will master the characteristics of neurotransmitters and their role in clinical treatments.*





# 02

# Objectives

This Postgraduate Diploma in Psychoneuroimmunoendocrinology aims to expand and update the health knowledge of the enrolled nurses. The aim is for students to obtain all the strategies and tools necessary to develop their professional career in neurobiology, neuroanatomy and functional neuroanatomy. To achieve this, TECH uses the latest technology and integrates content in different, up-to-date formats and to create critical and effective thinking in the clinical actions of nursing graduates.





“

*Delve into technological advances in neurobiology, neuroanatomy and functional neuroanatomy to meet your career goals”*



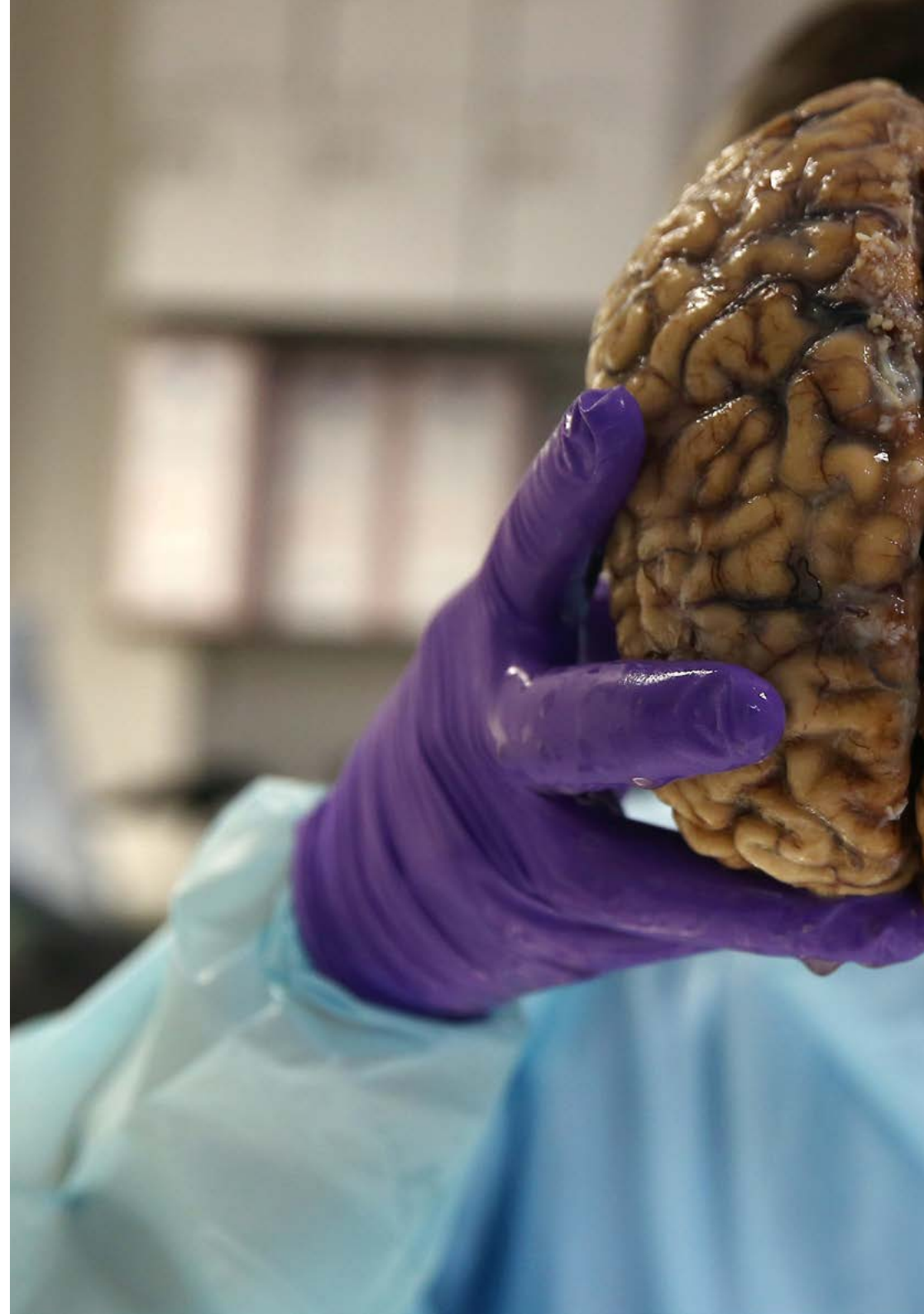
## General Objectives

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- Know in detail the latest developments related to the advances that have been made in the field of Psychoneuroimmunoendocrinology
- Delve in a specialized way into Neuropsychology and the keys to its understanding
- Develop a broad and exhaustive knowledge of Functional Neuroanatomy

“

*You will have high-quality detailed images and videos to easily identify the functional neuroanatomy and distinguish the different parts that compose it"*





## Specific Objectives

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### **Module 1. Introduction to Neuropsychology**

- ◆ Know the beginnings of neuropsychology and its first studies
- ◆ Learn about the principles of neurobiology
- ◆ Get to know and contextualize the principles of the development of the central nervous system

### **Module 2. Principles of Neuroanatomy**

- ◆ Gain knowledge about the origins and the evolutionary process of the nervous system
- ◆ Obtain a general vision on the formation of the nervous system
- ◆ Know the basic fundamentals of neuroanatomy

### **Module 3. Functional Neuroanatomy**

- ◆ Learn and understand about the principles of functional neuroanatomy
- ◆ Differentiate between the different brain zones and their functioning



# 03

## Structure and Content

The syllabus of this Postgraduate Diploma has been carefully planned with professionals versed in Nursing and Psychoneuroimmunoendocrinology to share their health training with nurses. All of this with the guarantees of proven academic knowledge and including real experiences through personalized and individual tutorials offered by teachers. In addition, the program is developed based on the Relearning methodology, which will exempt students from long hours of study by acquiring knowledge in a progressive and constant manner. All this, together with TECH's 100% online mode, offers graduates the opportunity to organize the learning experience in a personalized way that is fully compatible with their work and personal life.





“

*You will delve into the principles of the functioning of the different parts of the brain, with special emphasis on cellular and molecular neurobiology”*

## Module 1. Introduction to Neuropsychology

- 1.1. Introduction to Neuropsychology
  - 1.1.1. Principles and Origins of Neuropsychology
  - 1.1.2. First Approaches to the Discipline
- 1.2. First Approaches to the Neuropsychology
  - 1.2.1. First Works Within Neuropsychology
  - 1.2.2. Most Relevant Authors and Reading Material
- 1.3. Ontogeny and Phylogeny of the CNS
  - 1.3.1. Concept of Ontogeny and Phylogeny
  - 1.3.2. Ontogeny and Phylogeny Within the CNS
- 1.4. Cellular and Molecular Neurobiology
  - 1.4.1. Introduction to Neurobiology
  - 1.4.2. Cellular and Molecular Neurobiology
- 1.5. Neurobiology of Systems
  - 1.5.1. Concepts of Systems
  - 1.5.2. Structures and Development
- 1.6. Embryology of the Nervous System
  - 1.6.1. Principles of Embryology of the Nervous System
  - 1.6.2. Phases of CNS Embryology
- 1.7. Introduction to Structural Anatomy CNS
  - 1.7.1. Introduction to Structural Anatomy
  - 1.7.2. Structural Development
- 1.8. Introduction to Functional Anatomy
  - 1.8.1. What is Function Anatomy?
  - 1.8.2. Most Important Functions
- 1.9. Neuroimaging Techniques
  - 1.9.1. Concept of Neuroimaging
  - 1.9.2. Most Commonly Used Techniques
  - 1.9.3. Advantages and Disadvantages

## Module 2. Principles of Neuroanatomy

- 2.1. Formation of the Nervous System
  - 2.1.1. Anatomical and Functional Organization of the Nervous System
  - 2.1.2. Neurons
  - 2.1.3. Glial Cells
  - 2.1.4. Central Nervous System: Brain and Spinal Cord
  - 2.1.5. Main Structures
    - 2.1.5.1. Forebrain
    - 2.1.5.2. Midbrain
    - 2.1.5.3. Rhombencephalon
- 2.2. Formation of the Nervous System II
  - 2.2.1. Peripheral Nervous System
    - 2.2.1.1. Somatic Nervous System
    - 2.2.2.2. Neurovegetative or Autonomic Nervous System
    - 2.2.2.3. White Matter
    - 2.2.2.4. Gray Matter
    - 2.2.2.5. Meninges
    - 2.2.2.6. Cerebrospinal Fluid
- 2.3. The Neurone and its Composition
  - 2.3.1. Introduction to the Neurone and its Function
  - 2.3.2. The Neurone and its Composition
- 2.4. Electric and Chemical Synapses
  - 2.4.1. What is a Synapse?
  - 2.4.2. Electrical Synapse
  - 2.4.3. Chemical Synapse
- 2.5. Neurotransmitters
  - 2.5.1. What is a Neurotransmitter?
  - 2.5.2. Types of Neurotransmitters and their Functioning



- 2.6. Neuroendocrinology (Hypothalamus-Endocrine System Relationship)
  - 2.6.1. Introduction to Neuroendocrinology
  - 2.6.2. Principles of Neuroendocrinological Functioning
- 2.7. Neuroimmunology (Relationship between the Nervous System and Immune System)
  - 2.7.1. Introduction to Neuroimmunology
  - 2.7.2. Principles and Fundamentals of Neuroimmunology
- 2.8. Nervous System in Childhood and Adolescence
  - 2.8.1. Development of CNS
  - 2.8.2. Principles and Characteristics
- 2.9. Nervous System in Adulthood
  - 2.9.1. Principles and Characteristics of the CNS
- 2.10. Nervous System in Old Age
  - 2.10.1. Principles and Characteristics of the CNS in Old Age
  - 2.10.2. Main Related Problems

### Module 3. Functional Neuroanatomy

- 3.1. Frontal Lobe
  - 3.1.1. Introduction to the Frontal Lobe
  - 3.1.2. Main Features
  - 3.1.3. Principles of their Functioning
- 3.2. Neuropsychology of the Dorsolateral Prefrontal Cortex
  - 3.2.1. Introduction to the Dorsolateral Prefrontal Cortex
  - 3.2.2. Main Features
  - 3.2.3. Principles of their Functioning
- 3.3. Neuropsychology of the Orbitofrontal Cortex
  - 3.3.1. Introduction to the Orbitofrontal Cortex
  - 3.3.2. Main Features
  - 3.3.3. Principles of their Functioning

- 3.4. Neuropsychology of the Medial Prefrontal Cortex
  - 3.4.1. Introduction to the Dorsolateral Prefrontal Cortex
  - 3.4.2. Main Features
  - 3.4.3. Principles of their Functioning
- 3.5. Motor Cortex
  - 3.5.1. Introduction to the Motor Cortex
  - 3.5.2. Main Features
  - 3.5.3. Principles of their Functioning
- 3.6. Temporal Lobe
  - 3.6.1. Introduction to the Temporal Lobe Cortex
  - 3.6.2. Main Features
  - 3.6.3. Principles of their Functioning
- 3.7. Parietal Lobe
  - 3.7.1. Introduction to the Parietal Lobe Cortex
  - 3.7.2. Main Features
  - 3.7.3. Principles of their Functioning
- 3.8. Occipital Lobe
  - 3.8.1. Introduction to the Occipital Lobe Cortex
  - 3.8.2. Main Features
  - 3.8.3. Principles of their Functioning
- 3.9. Cerebral Asymmetry
  - 3.9.1. Concept of Brain Asymmetry
  - 3.9.2. Characteristics and Functioning



*A program designed for nurses like you,  
who approach clinical performance  
with the intervention of technology in  
neurological treatments"*

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.



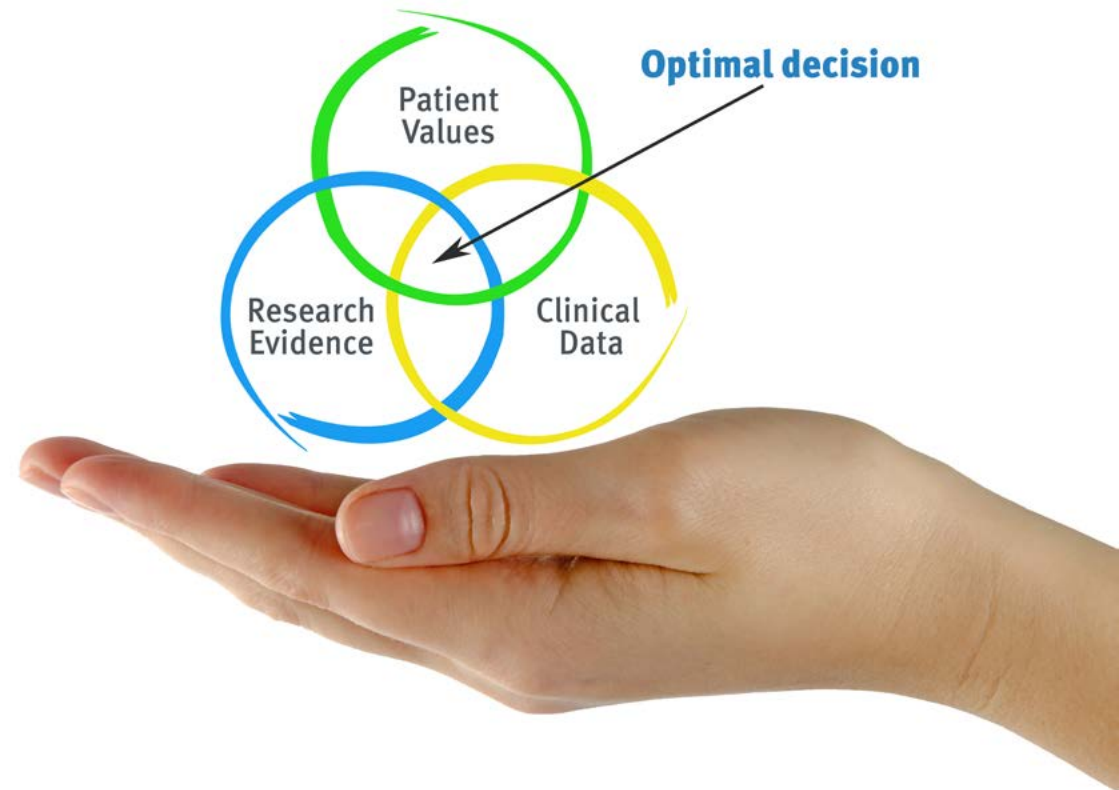
“

*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"*

## 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.
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.



## 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.*



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.



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.

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.





#### 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 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

This Postgraduate Diploma in Psychoneuroimmunoendocrinology 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"*

This **Postgraduate Diploma in Psychoneuroimmunoendocrinology** 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 Psychoneuroimmunoendocrinology**

Official N° of hours: **450 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.





## Postgraduate Diploma

### Psychoneuroimmunoendocrinology

- » Modality: online
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- » Schedule: at your own pace
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Postgraduate Diploma

Psychoneuroimmunoendocrinology