

Postgraduate Diploma

Psychoneuroimmunoendocrinology



**tech** global  
university



## Postgraduate Diploma

### Psychoneuroimmunoendocrinology

- » Modality: online
- » Duration: 6 months
- » Certificate: TECH Global University
- » Credits: 18 ECTS
- » Schedule: at your own pace
- » Exams: online

Website: [www.techtute.com/us/psychology/postgraduate-diploma/postgradute-diploma-psychoneuroimmunoendocrinology](http://www.techtute.com/us/psychology/postgraduate-diploma/postgradute-diploma-psychoneuroimmunoendocrinology)

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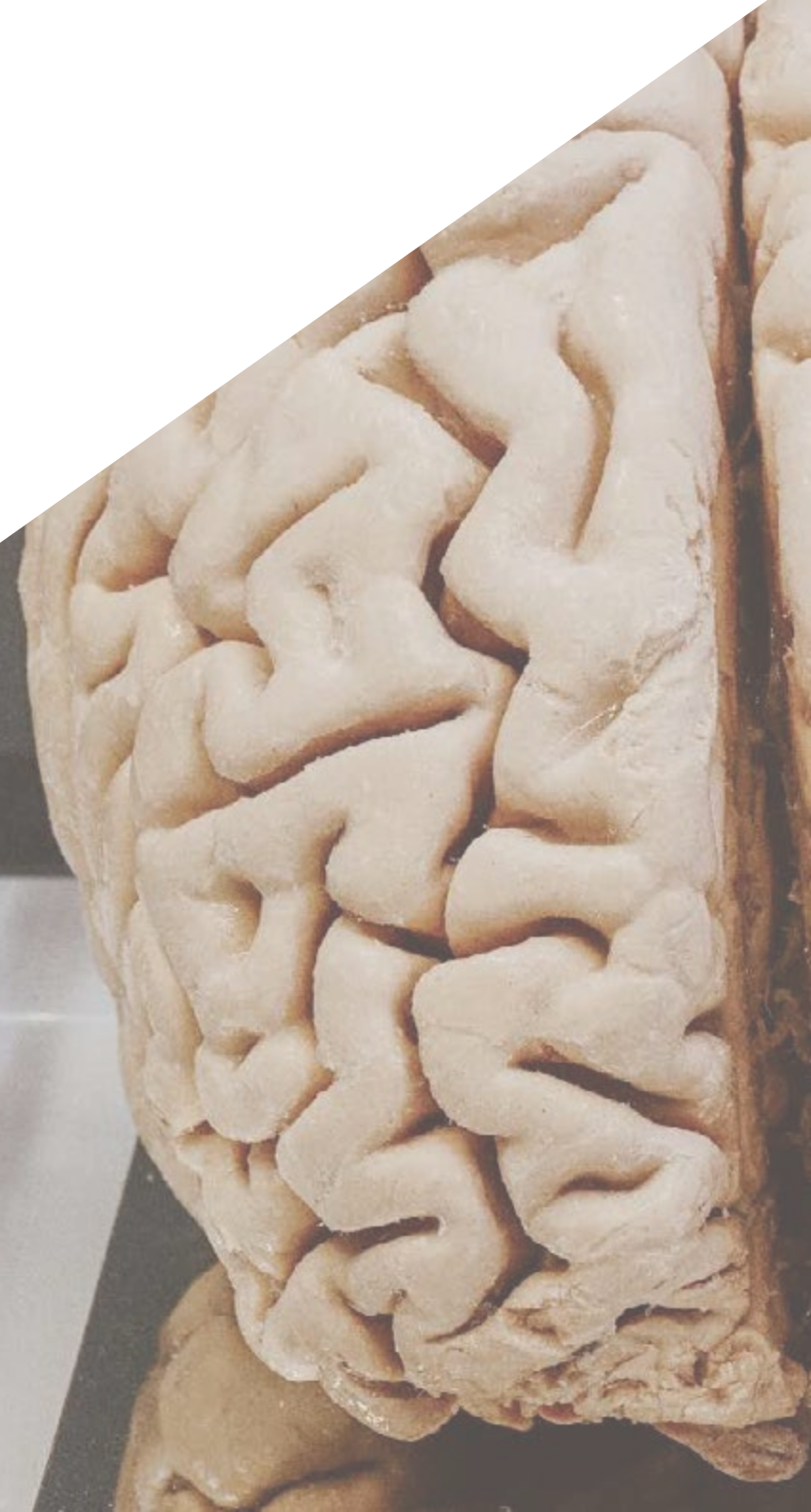
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# 01

# Introduction

To the question of whether it is possible that emotions and mental states that generate anxiety, stress, worry or fear affect the immune and endocrine systems, the answer is emphatically yes. Thanks to the evolution of Psychoneuroimmunoendocrinology, it has been found that mental health is closely related to physical health, and it has been possible to develop increasingly effective strategies to treat the possible complications that arise from disorders and borderline mental situations. Everything the specialist needs to know to keep up to date with the latest advances in this field can be found in this complete and exhaustive program. Moreover, thanks to its convenient, 100% online format, you will be able to keep up to date in a guaranteed way and perfectly balance it with any other professional or personal activity.





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*Knowing in detail the latest developments in Psychoneuroimmunoendocrinology from wherever you want and with a schedule adapted to you, is at your fingertips with this 100% online program”*

Despite the fact that until relatively recently everything related to the field of Psychoneuroimmunoendocrinology was unknown, continuous research and advances in science have made it possible to confirm that there is an intimate connection between the immune system, behavior, the central nervous system and the endocrine system. As a result, the idea that the immune system was self-regulating was discarded, accepting the paradigm that interactions with the rest can interfere positively and negatively with the patient's health.

The success of the therapies and treatments applied in this field with millions of patients has led to an increasing demand for professionals specialized in this area who can perfectly handle the latest and most effective techniques. For them, TECH and its team of experts have created this Postgraduate Diploma in Psychoneuroimmunoendocrinology. It is a program that delves into the basics of Neuropsychology, as well as the principles of Functional Neuroanatomy. Thanks to the course of this 100% online qualification, the graduate will acquire a broad and up-to-date knowledge of the latest developments in this discipline, and will be able to implement the best strategies in the management of patients with various psychological pathologies in their professional practice.

For this purpose, a virtual classroom will be available 24 hours a day and throughout the week, which can be accessed from any device with an internet connection. In it, you will find a syllabus, designed by experts in Psychology and Immunoendocrinology, as well as complementary readings, research articles, detailed videos, dynamic summaries and images to contextualize the information and delve into each section in a personalized way.

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

- ♦ The development of practical cases presented by experts in Psychology and Immunology
- ♦ 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 the self-assessment process can be carried out 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



*An intensive qualification that includes, from the introduction to Neuropsychology, to the exhaustive knowledge of functional neuroanatomy"*

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*In the virtual classroom you will find real clinical cases in which you will be able to apply your skills in the management of patients, perfecting your skills thanks to the advice of the teaching team”*

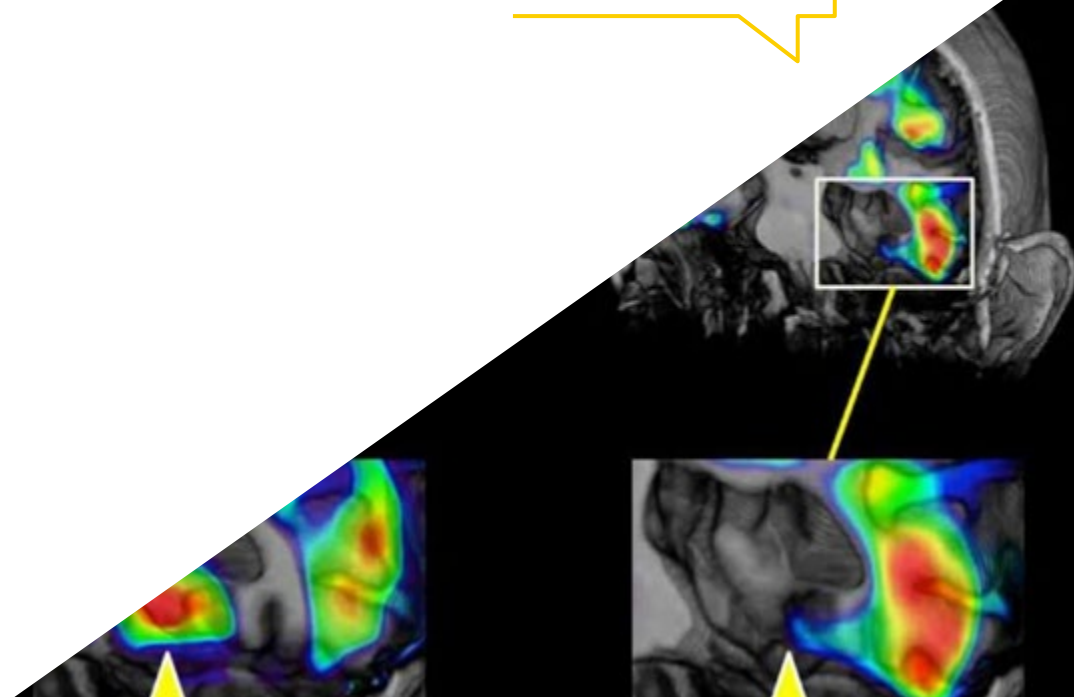
The program’s teaching staff includes professionals from sector who contribute their work experience to this program, as well as renowned specialists from leading societies and prestigious universities.

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 immersive education programmed to learn in real 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. For this purpose, the student will be assisted by an innovative interactive video system created by renowned and experienced experts.

*Are you able to recognize the main neurotransmitters and how they work? With this Postgraduate Diploma, you will master the characteristics of each one of them.*

*You will delve into the formation of the nervous system to perfectly understand the latest developments related to electrical and chemical synapses.*



# 02

# Objectives

The promising results demonstrated by Psychoneuroimmunoendocrinology is what has motivated TECH Global University to create this qualification, so that more and more professionals have access to an up-to-date and specialized knowledge in this discipline. Therefore, the objective of this Postgraduate Diploma is to provide the student with the most complete and innovative information related to this branch of Psychology, as well as to facilitate the acquisition of knowledge through the most sophisticated academic tools in the university sector.







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*The more demanding your objectives are, the more you will be able to get out of this Postgraduate Diploma”*



## General Objectives

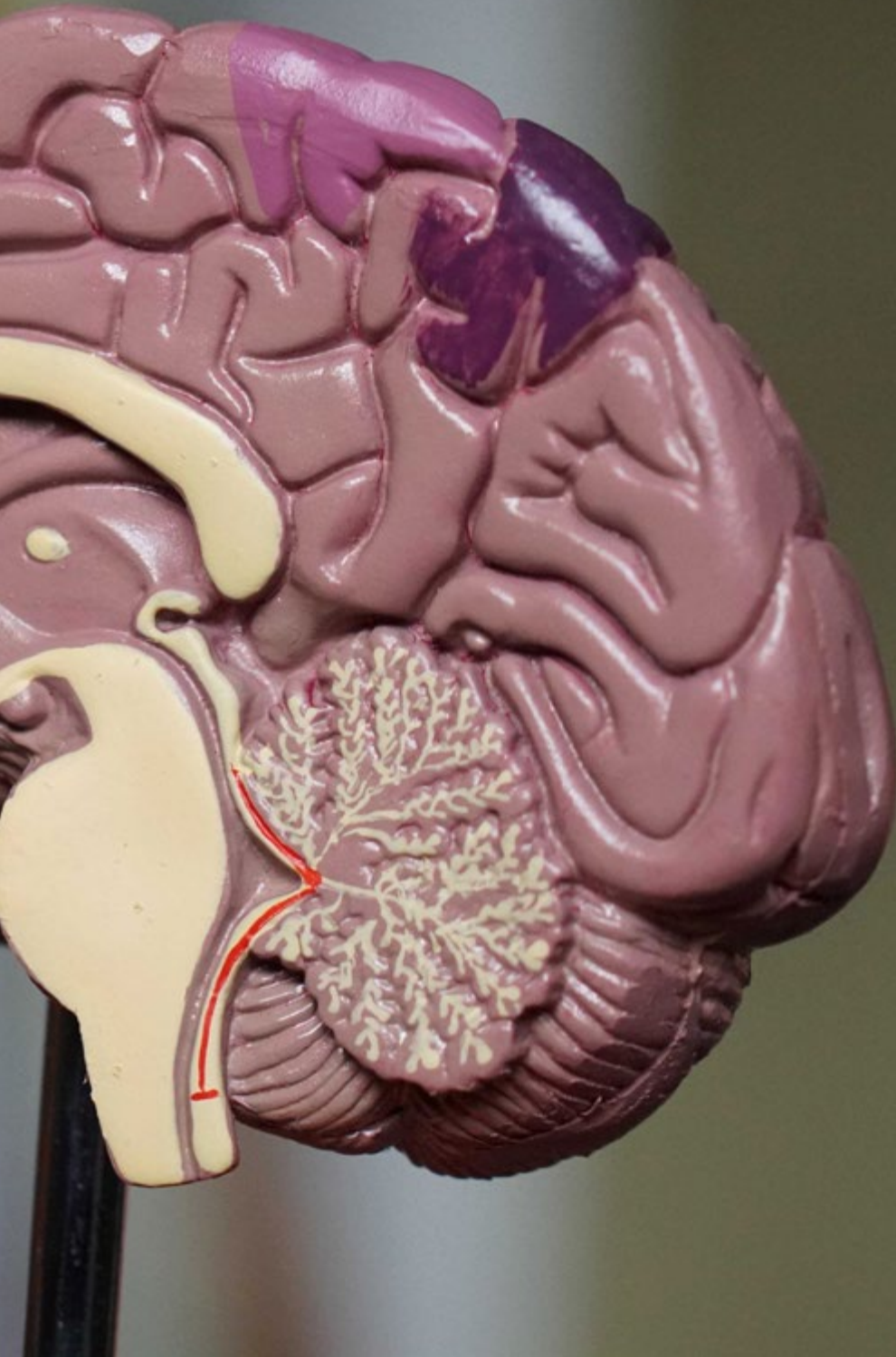
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- ♦ Know in detail the latest developments related to the advances that have been made in the field of Psychoneuroimmunoendocrinology
- ♦ Delve in a specialized way into Neuropsychology and the keys to its understanding
- ♦ Develop a broad and exhaustive 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 basics of Neurobiology
- Know and contextualize the bases of the development of the central nervous system

### Module 2. Principles of Neuroanatomy

- Know the origins and the evolutionary process of the nervous system
- Obtain a general vision on the formation of the nervous system
- Know the fundamental basics of Neuroanatomy

### Module 3. Functional Neuroanatomy

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

# 03

## Course Management

TECH is continually committed to academic excellence. For this reason, each of its programs has teaching teams of the highest reputation. These experts have extensive experience in their professional fields and, at the same time, have achieved significant results with their empirical research and fieldwork. In addition, these specialists play a leading role within the university qualification, as they are in charge of selecting the most up-to-date and innovative content to be included in the syllabus. In addition, they participate in the elaboration of numerous multimedia resources of high pedagogical rigor.



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*The teaching materials of this program, elaborated by these specialists, have contents that are completely applicable to your professional experiences”*

## International Guest Director

Dr. Steven P. Woods is a leading neuropsychologist, internationally recognized for his outstanding contributions to improving clinical detection, prediction and treatment of real-world health outcomes in diverse neuropsychological populations. He has forged an exceptional career path, which has led him to publish over 300 articles and serve on editorial boards in 5 major Clinical Neuropsychology journals.

His excellent scientific and clinical work focuses primarily on the ways in which cognition can hinder and support daily activities, health and well-being in adults with chronic medical conditions. Other areas of scientific relevance, for this expert, also include health literacy, apathy, intra-individual variability and internet navigation skills. His research projects are funded by the National Institute of Mental Health (NIMH) and the National Institute on Drug Abuse (NIDA).

In this regard, Dr. Woods' research approach explores the application of theoretical models to elucidate the role of neurocognitive deficits (e.g., memory) in everyday functioning and health literacy in people affected by HIV and aging. In this way, his interest focuses, for example, on how people's ability to "Remember to Remember", the so-called prospective memory, influences health-related behaviors, such as medication adherence. This multidisciplinary approach is reflected in his groundbreaking research, available on Google Scholar and ResearchGate.

He has also founded the Clinical Neuropsychology Service at Thomas Street Health Center, where he holds a senior position as Director. Here, Dr. Woods provides Clinical Neuropsychology services to people affected by HIV, providing critical support to communities in need and reaffirming his commitment to the practical application of his research to improve lives.



## Dr. Woods, Steven P

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- ♦ Fundador y Director del Clinical Neuropsychology Service en el Thomas Street Health Center
- ♦ Colaborador en el Department of Psychology, University of Houston
- ♦ Editor asociado en *Neuropsychology* y *The Clinical Neuropsychologist*
- ♦ Doctorado en Psicología Clínica, con especialización en Neuropsicología, por la Norfolk State University
- ♦ Licenciado en Psicología por la Portland State University
- ♦ Miembro: National Academy of Neuropsychology y American Psychological Association (Division 40, Society for Clinical Neuropsychology)

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*Thanks to TECH, you will be able to learn with the best professionals in the world”*

# 04

# Structure and Content

TECH Global University invests hundreds of hours in the development of each of its programs. For this reason, its qualifications are the result of the effort and perseverance of a team of experts who always strive to create the best content, adapted to the specifications of the sector, market demand and the immediate relevance of the subject matter. All of this is compiled in a convenient and accessible 100% online program that gives students the opportunity to organize their educational experience in a personalized way that is perfectly compatible with their work and personal life.





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*You will be able to delve into the basics of the functioning of the different parts of the brain, with special emphasis on its main characteristics"*

## Module 1. Introduction to Neuropsychology

- 1.1. Introduction to Neuropsychology
  - 1.1.1. Basis 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 Works
- 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. 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. Basis of Neuroendocrinological Functioning
- 2.7. Neuroimmunology (Relationship between the Nervous System and Immune System)
  - 2.7.1. Introduction to Neuroimmunology
  - 2.7.2. Basis and Fundamentals of Neuroimmunology
- 2.8. Nervous System in Childhood and Adolescence
  - 2.8.1. Development of CNS
  - 2.8.2. Bases and Characteristics
- 2.9. Nervous System in Adulthood
  - 2.9.1. Bases and Characteristics of the CNS
- 2.10. Nervous System in Old Age
  - 2.10.1. Bases 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. Bases 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. Bases 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. Bases 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. Bases of their Functioning

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



*With TECH and this very complete program, you will become an expert in Psychoneuroimmunoendocrinology without classroom classes or restricted schedules"*

05

# 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.



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*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 we use the Case Method

What should a professional do in a given situation? 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. Specialists learn better, faster, and more sustainably over time.

*With TECH the psychologist experiences a way of learning 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, trying to recreate the real conditions in the psychologist's professional practice.

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*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. Psychologists who follow this method not only master the assimilation of concepts, but also develop their mental capacity by means of exercises to evaluate real situations and apply their knowledge.
2. Learning is solidly translated into practical skills that allow the psychologist to better integrate knowledge into clinical practice.
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.

Our university is the first in the world to combine the study of clinical cases 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 psychologist 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).

This methodology has trained more than 150,000 psychologists with unprecedented success in all clinical specialties. 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 training, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation for 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.



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 highly 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.



#### Latest Techniques and Procedures on Video

TECH introduces students to the latest techniques, to the latest educational advances, to the forefront of current psychology. 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 the videos as many times as you like.



#### 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.



06

# 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 Global University.



The image features two graduation caps (mortarboards) against a blue sky with light clouds. One cap is in the foreground on the left, and another is slightly behind it to the right. The caps are black with a maroon top. The background is split diagonally into a white lower-right section and a magenta upper-right section.

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

This program will allow you to obtain your **Postgraduate Diploma in Psychoneuroimmunoendocrinology** 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 Diploma in Psychoneuroimmunoendocrinology**

Modality: **online**

Duration: **6 months**

Accreditation: **18 ECTS**





## Postgraduate Diploma

### Psychoneuroimmunoendocrinology

- » Modality: online
- » Duration: 6 months
- » Certificate: TECH Global University
- » Credits: 18 ECTS
- » Schedule: at your own pace
- » Exams: online

Postgraduate Diploma

Psychoneuroimmunoendocrinology