

# Postgraduate Certificate

## Principles of Functional Neuroanatomy



## Postgraduate Certificate Principles of Functional Neuroanatomy

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

Website: [www.techtute.com/us/nursing/postgraduate-certificate/principles-functional-neuroanatomy](http://www.techtute.com/us/nursing/postgraduate-certificate/principles-functional-neuroanatomy)

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# 01

# Introduction

Functional Neuroanatomy is composed of the nervous and parasympathetic systems of the human body. On this science depends a large majority of the most basic capabilities of the human being, such as the executive functions, which are involved in decision-making, the development of plans, adaptation to changes in the environment, problem solving, self-control and regulation. To contribute to the development of innovative therapies that counteract the effects of brain pathologies, experienced specialists are required who know how to put them into practice and offer more effective healthcare alternatives. For this reason, TECH offers a program that introduces nursing professionals to the most up-to-date knowledge of functional neuroanatomy. All this through a 100% online mode that allows you to adapt the pace of study.





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*TECH offers you a program based on the experience of experts in neurology, which will strengthen your skills in the field of care for patients with neurological disorders”*

Given the importance of the neurological capacities that allow the body to adapt to emergencies and to conserve and restore energy, it is necessary that the health sector is trained to respond to its possible pathologies. In this sense, brain intervention with strategies and techniques that are in line with the latest scientific evidence are essential to positively influence the quality of the clinical cases that are handled.

To expand the knowledge of nursing graduates who wish to master this area, TECH has developed a complete and rigorous educational program that has the support of great professionals. Students will be able to acquire the most specific knowledge on the different brain areas, their functioning and characteristics, thanks to a qualification offered in a 100% online mode, which allows them to adapt the pace of study to their personal and work needs.

In addition, TECH uses the latest teaching techniques, such as the Relearning methodology, which exempts nurses from long hours of memorization and offers them a progressive and simple assimilation of the syllabus. Likewise, the teaching team will provide detailed tutoring and guidance to each student, to ensure their correct instruction through content presented in various audiovisual formats.

This **Postgraduate Certificate in Principles of Functional Neuroanatomy** 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 Neurology
- ♦ 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 program designed for the most demanding specialists who are looking to update their knowledge in the field of neuroanatomy, responsible for the executive functions of the human being"*

“*TECH offers you the opportunity to expand your knowledge in the most effective and simple way, through a 100% online format with downloadable content*”

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.

*Over just 6 weeks, you will delve into the frontal lobe and the neuropsychology of the dorsolateral prefrontal cortex with the best teaching tools.*

*A program with which you will master the characteristics and brain functioning focusing on the elements involved in brain neuroanatomy.*



# 02 Objectives

With this Postgraduate Certificate in Principles of Functional Neuroanatomy, TECH aims to expand, update and focus the knowledge of nursing graduates on the specific contents of the specialty. Students will learn about the different lobes found in the brain, such as the frontal, temporal and parietal lobes, but will also delve into the concept of cerebral asymmetry and the motor cortex, among other types. In this way, you will get a complete instruction of the brain field and will be able to contribute to the study of neuroanatomy.







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*With this Postgraduate Certificate, you will delve into the principles of how the motor cortex works, as well as its main characteristics”*



## General Objectives

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- Delve into the latest developments in Functional Neuroanatomy, as well as the diagnostic and treatment strategies that are obtaining the best results
- Know in detail the aspects of Neuropsychology and its main characteristics, as well as the latest scientific evidence related to the basis of its functioning





## Specific Objectives

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- ◆ Learn and understand about the Principles of Functional Neuroanatomy
- ◆ Differentiate between the different brain zones and their functioning

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*Thanks to this program, you will achieve the most demanding objectives required of all neurology nurses, both in theory and in practice”*



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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- Founder and Director of the Clinical Neuropsychology Service at the Thomas Street Health Center
- Collaborator in the Department of Psychology, University of Houston
- Associate Editor at Neuropsychology and The Clinical Neuropsychologist
- Ph.D. in Clinical Psychology, with a specialization in Neuropsychology, Norfolk State University
- B.S. in Psychology, Portland State University
- Member of:
  - National Academy of Neuropsychology
  - 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

In order to dynamize the study and offer a flexible and dynamic teaching, TECH offers a syllabus that is taught through audiovisual content in different formats. In addition, TECH's 100% online mode allows students to adapt the course to their personal and work availability, facilitating the teaching experience. It is worth highlighting the application of effective pedagogical techniques such as the Relearning methodology, which exempts registered users from dedicating long hours of memorization to the contents, as it makes learning progressive and simple.





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*Inquire into the characteristics of the parietal lobe, occipital and temporal lobe to learn about their influence on brain anatomy”*

## Module 1. Functional Neuroanatomy

- 1.1. Frontal Lobe
  - 1.1.1. Introduction to the Frontal Lobe
  - 1.1.2. Main Features
  - 1.1.3. Principles of their Functioning
- 1.2. Neuropsychology of the Dorsolateral Prefrontal Cortex
  - 1.2.1. Introduction to the Dorsolateral Prefrontal Cortex
  - 1.2.2. Main Features
  - 1.2.3. Principles of their Functioning
- 1.3. Neuropsychology of the Orbitofrontal Cortex
  - 1.3.1. Introduction to the Orbitofrontal Cortex
  - 1.3.2. Main Features
  - 1.3.3. Principles of their Functioning
- 1.4. Neuropsychology of the Medial Prefrontal Cortex
  - 1.4.1. Introduction to the Dorsolateral Prefrontal Cortex
  - 1.4.2. Main Features
  - 1.4.3. Principles of their Functioning
- 1.5. Motor Cortex
  - 1.5.1. Introduction to the Motor Cortex
  - 1.5.2. Main Features
  - 1.5.3. Principles of their Functioning
- 1.6. Temporal Lobe
  - 1.6.1. Introduction to the Temporal Lobe Cortex
  - 1.6.2. Main Features
  - 1.6.3. Principles of their Functioning





- 1.7. Parietal Lobe
  - 1.7.1. Introduction to the Parietal Lobe Cortex
  - 1.7.2. Main Features
  - 1.7.3. Principles of their Functioning
- 1.8. Occipital Lobe
  - 1.8.1. Introduction to the Occipital Lobe Cortex
  - 1.8.2. Main Features
  - 1.8.3. Principles of their Functioning
- 1.9. Cerebral Asymmetry
  - 1.9.1. Concept of Brain Asymmetry
  - 1.9.2. Characteristics and Functioning

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*With this Postgraduate Certificate, you will obtain all the specific knowledge on brain asymmetry and its functioning through high-quality multimedia content”*



# 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 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.

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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. 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.



06

# Certificate

The Postgraduate Certificate in Principles of Functional Neuroanatomy guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Global University.





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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 Certificate in Principles of Functional Neuroanatomy** endorsed by **TECH Global University**, the world's largest online university.

**TECH Global University** is an official European University publicly recognized by the Government of Andorra ([official bulletin](#)). Andorra is part of the European Higher Education Area (EHEA) since 2003. The EHEA is an initiative promoted by the European Union that aims to organize the international training framework and harmonize the higher education systems of the member countries of this space. The project promotes common values, the implementation of collaborative tools and strengthening its quality assurance mechanisms to enhance collaboration and mobility among students, researchers and academics.

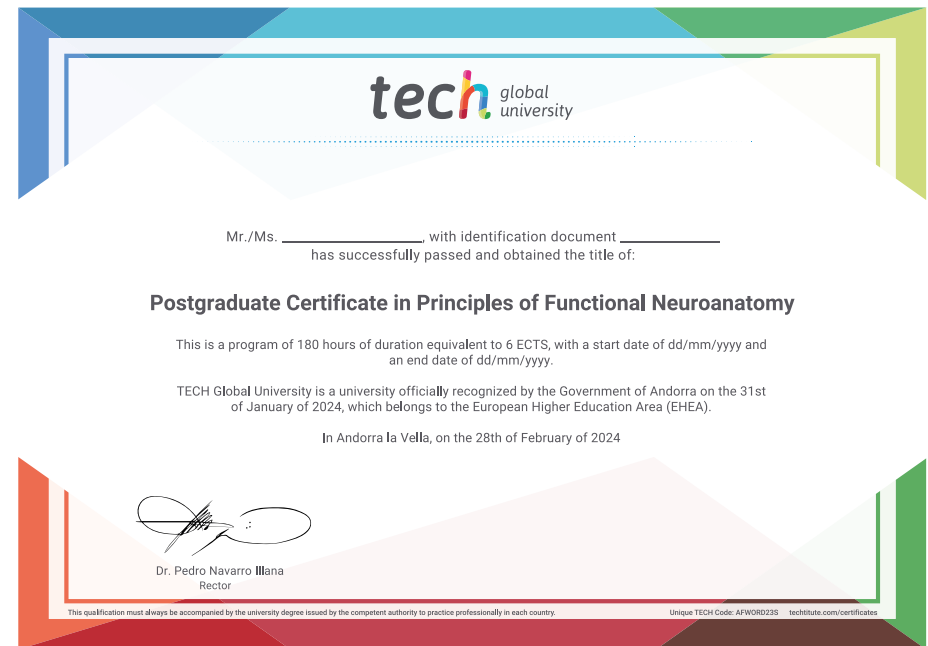
This **TECH Global University** title is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: **Postgraduate Certificate in Principles of Functional Neuroanatomy**

Modality: **online**

Duration: **6 weeks**

Accreditation: **6 ECTS**



future  
health confidence people  
education information tutors  
guarantee accreditation teaching  
institutions technology learning  
community commitment  
personalized service innovation  
knowledge present  
online training  
development languages  
classroom



**Postgraduate Certificate**  
Principles of Functional  
Neuroanatomy

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

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