

# Postgraduate Certificate Principles of Neuroanatomy



## Postgraduate Certificate

### Principles of Neuroanatomy

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

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

# Index

01

Introduction

---

*p. 4*

02

Objectives

---

*p. 8*

03

Course Management

---

*p. 12*

04

Structure and Content

---

*p. 16*

05

Methodology

---

*p. 20*

06

Certificate

---

*p. 28*

# 01

# Introduction

The continuous scientific advances that have taken place in Neuroanatomy have allowed specialists to approach the exhaustive knowledge of the nervous system, both from the macroscopic point of view and at the level of tissues, cells and neuronal connections. Thanks to this, it has been possible to lay the foundations of modern Neuroscience and to work intensively in the search for methods of diagnosis and treatment of brain diseases. However, as it is a continuously evolving specialty, specialists are often unable to keep up to date.

For this reason, TECH Technological University has decided to develop this complete program, specifically designed to update their knowledge in a 100% online way.





“

*Neuroanatomy has become a fundamental part of the development of modern Neuroscience. For this reason, knowing the latest developments in detail will allow you to contribute professionally to the advancement of this science”*

The management of numerous clinical cases around the world has shown that having a solid knowledge of Neuroanatomy can have a positive influence in achieving better diagnostic results and more effective treatments for patients with neurological pathologies. On the other hand, the management of information related to the anatomy of the nervous system is essential in the different surgical approaches performed daily.

That is why having a qualification such as the one offered by TECH Technological University with this Postgraduate Certificate is essential for all those psychology professionals who want to know in detail the latest developments related to this science, so they can apply them in their day to day in their practice.

This is a 100% online program with which the professional will be able to delve into the principles of Neuroanatomy, through a comprehensive approach to the formation of the central nervous system (CNS) and neurons, the different types of synapses and neurotransmitters. In addition, it will also delve into neuroendocrinology and neuroimmunology, with special emphasis on the characteristics of the CNS at different stages: from childhood and adolescence to old age.

For this, the graduate will have 150 hours of the best theoretical, practical and additional content designed by a teaching team, specialist in the area, adapted to the prestigious and effective Relearning methodology, in whose use this institution is a pioneer. Thanks to this, in less than 6 weeks you will have updated and expanded your knowledge, as well as perfected your professional skills in a guaranteed way and with the endorsement of the world's largest online university.

This **Postgraduate Certificate in Principles of Neuroanatomy** contains the most complete and up-to-date 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



*A unique and accessible opportunity to increase your knowledge in relation to the composition of neurons and how they function in the CNS"*

“

*If you are looking for a program with which to learn in detail the latest scientific evidence related to the Peripheral Nervous System, enroll in this Postgraduate Certificate and you will achieve it"*

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.

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, students will be assisted by an innovative interactive video system developed by renowned experts.

*Thanks to its convenient 100% online format, you can update your knowledge at any time and from the place of your choice.*

*A convenient and accessible option to delve into the latest developments in the formation of the nervous system and its main structures.*





# 02 Objectives

The mastery of Neuroanatomy is essential to promote the evolution of other sciences such as Neuroscience, so professionals working in this sector must know in detail the latest developments in order to be able to use them in their daily work and contribute to the continuity of this progress. For this reason, the objective of this Postgraduate Certificate is to provide graduates with the teaching tools that will allow them to get up to date in just 6 weeks and through a qualification designed exclusively for them and presented in a convenient and accessible 100% online format.







“

*Whatever your educational goals, TECH guarantees that you will be able to meet them thanks to the thoroughness that has gone into the design of this qualification and all of its content”*



## General Objectives

---

- ♦ Know in detail the principles of Neuroanatomy, delve into the formation of the nervous system and its anatomical and functional organization
- ♦ Acquire a thorough knowledge of the main tools of this science, as well as the advantages and disadvantages of their use





## Specific Objectives

---

- 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



*A perfect educational plan to balance it with any other professional or academic activity without losing sight of your professional goals"*

# 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.





“

*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

---

- ♦ 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)

“

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

# 04

## Structure and Content

For the planning of the structure and development of the Postgraduate Certificate TECH Technological University has used the latest educational technology, added to the best content of the moment and the use of the effective and prestigious pedagogical methodology of Relearning. Thanks to this, it has been possible to create a complete and exhaustive qualification that gathers the most up-to-date information related to the area of Neuroanatomy, as well as hours of high-quality additional material to delve into each module of the syllabus. As such, you are guaranteed to get the best results from this educational experience.





“

*The teaching team has selected real clinical cases taken from their own practices, so that you can put your skills into practice and perfect your competencies by making use of their advice and experience"*

## Module 1. Principles of Neuroanatomy

- 1.1. Formation of the Nervous System
  - 1.1.1. Anatomical and Functional Organization of the Nervous System
  - 1.1.2. Neurons
  - 1.1.3. Glial Cells
  - 1.1.4. Central Nervous System: Brain and Spinal Cord
  - 1.1.5. Main Structures
    - 1.1.5.1. Forebrain
    - 1.1.5.2. Midbrain
    - 1.1.5.3. Rhombencephalon
- 1.2. Formation of the Nervous System II
  - 1.2.1. Peripheral Nervous System
    - 1.2.1.1. Somatic Nervous System
    - 1.2.1.2. Neurovegetative or Autonomic Nervous System
    - 1.2.1.3. White Matter
    - 1.2.1.4. Gray Matter
    - 1.2.1.5. Meninges
    - 1.2.1.6. Cerebrospinal Fluid
- 1.3. The Neurone and its Composition
  - 1.3.1. Introduction to the Neurone and its Function
  - 1.3.2. The Neurone and its Composition
- 1.4. Electric and Chemical Synapses
  - 1.4.1. What is a Synapse?
  - 1.4.2. Electrical Synapse
  - 1.4.3. Chemical Synapse
- 1.5. Neurotransmitters
  - 1.5.1. What is a Neurotransmitter?
  - 1.5.2. Types of Neurotransmitters and their Functioning





- 1.6. Neuroendocrinology (Hypothalamus-Endocrine System Relationship)
  - 1.6.1. Introduction to Neuroendocrinology
  - 1.6.2. Basis of Neuroendocrinological Functioning
- 1.7. Neuroimmunology (Relationship between the Nervous System and Immune System)
  - 1.7.1. Introduction to Neuroimmunology
  - 1.7.2. Basis and Fundamentals of Neuroimmunology
- 1.8. Nervous System in Childhood and Adolescence
  - 1.8.1. Development of CNS
  - 1.8.2. Bases and Characteristics
- 1.9. Nervous System in Adulthood
  - 1.9.1. Bases and Characteristics of the CNS
- 1.10. Nervous System in Old Age
  - 1.10.1. Bases and Characteristics of the CNS in Old Age
  - 1.10.2. Main Related Problems

“

*Enroll now and do not miss this great opportunity to grow as a professional in Neuroanatomy with TECH and this Postgraduate Certificate”*



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.





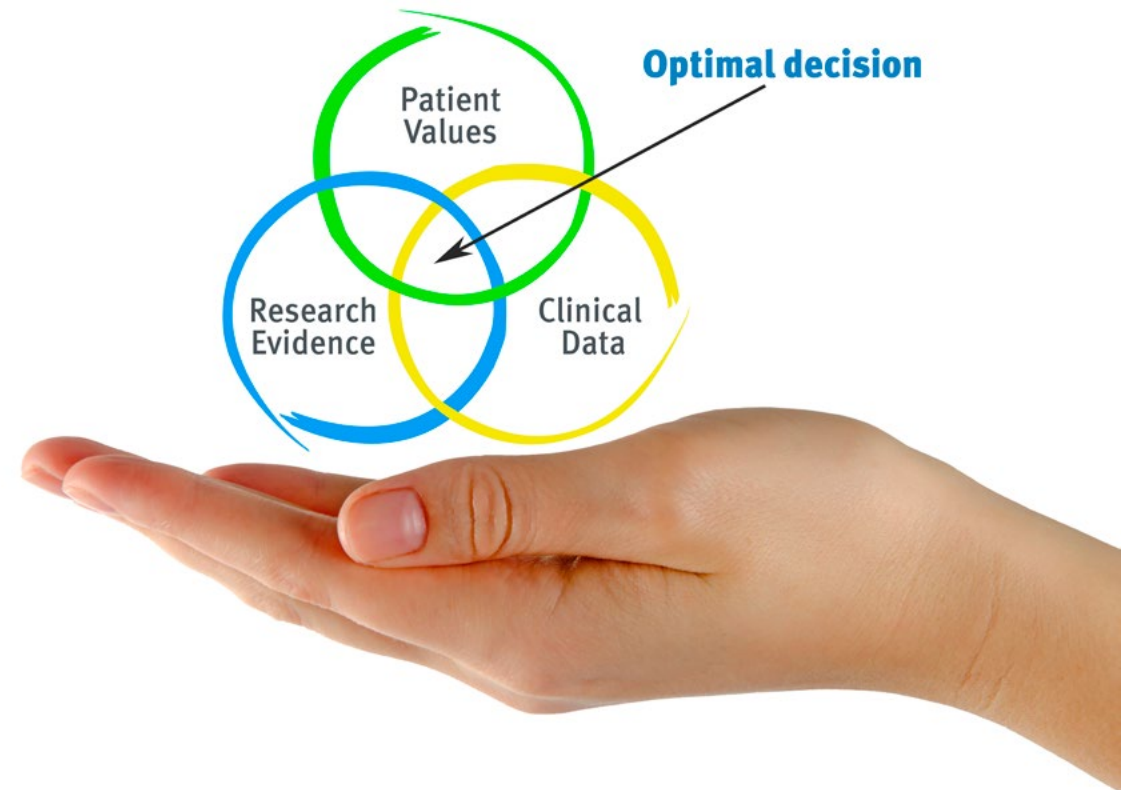
“

*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.

“

*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

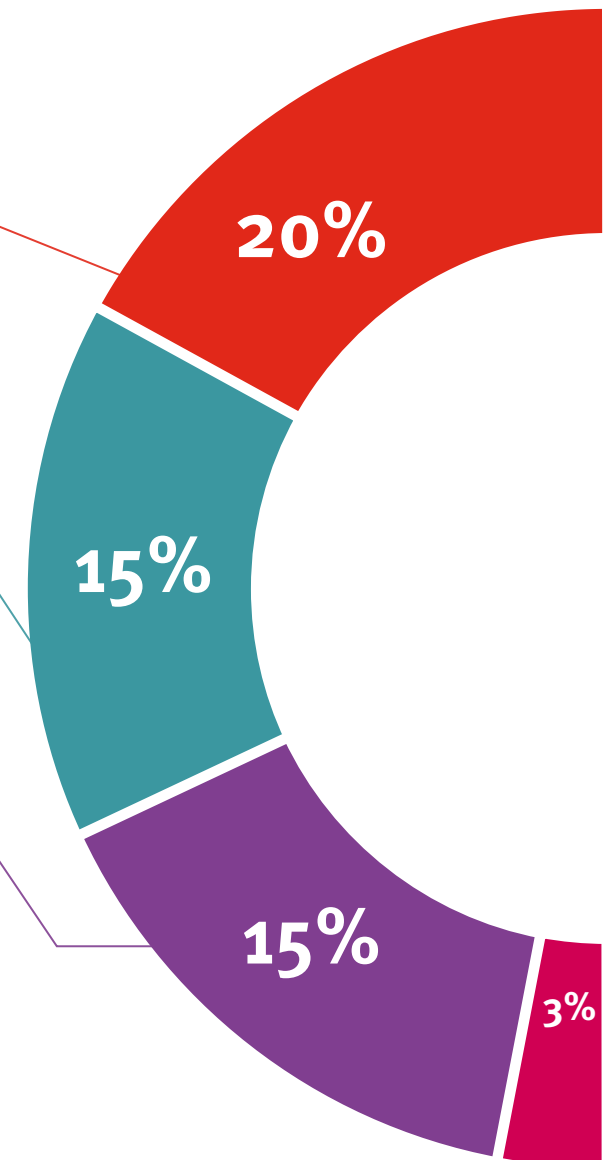
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

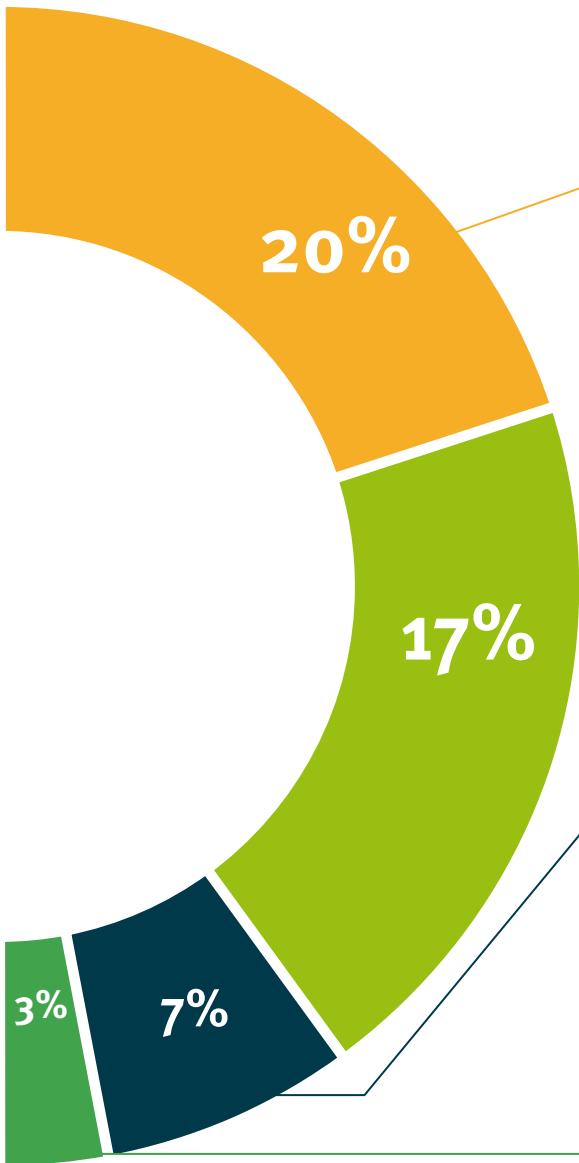
This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



#### 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

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





“

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

This **Postgraduate Certificate in Principles of Neuroanatomy** contains the most complete and up-to-date program on the market.

After the student has passed the assessments, they will receive their corresponding **Postgraduate Certificate** issued by **TECH Technological University** via tracked delivery\*.

The diploma issued by **TECH Technological University** will reflect the qualification obtained in the Postgraduate Certificate, and meets the requirements commonly demanded by labor exchanges, competitive examinations, and professional career evaluation committees.

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

Official N° of Hours: **150 h.**



\*Apostille Convention. In the event that the student wishes to have their paper diploma issued with an apostille, TECH EDUCATION will make the necessary arrangements to obtain it, at an additional cost.

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

**tech** technological  
university

Postgraduate Certificate

Principles of  
Neuroanatomy

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

# Postgraduate Certificate

## Principles of Neuroanatomy

