



# Postgraduate Certificate Principles of Neuroanatomy

» Modality: online

» Duration: 6 weeks

» Certificate: TECH Technological University

» Dedication: 16h/week

» Schedule: at your own pace

» Exams: online

Website: www.techtitute.com/pk/education/postgraduate-certificate/principles-neuroanatomy

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## tech 06 | Introduction

The advances that have been made in the management of neuroanatomy have not only helped in the clinical approach of certain patients, which has improved their quality of life, but has also favored the understanding of functioning, applying it to other disciplines such as education. A teacher who is able to understand the main tools of this science and its application, will in turn acquire greater competencies and skills to perform their profession every day.

This is the reason for the design of this Postgraduate Certificate, where students will have a faculty specialized in clinical neuropsychology, which will lead them to delve into the formation of the nervous system, to delve into the neuron and its composition, electrical and chemical synapses, neurotransmitters or the characteristics of the nervous system in the infantile and juvenile stage. The library of multimedia resources composed of video summaries, videos in detail, interactive diagrams will facilitate learning and professional growth of the student studying this program.

Likewise, the teaching professional will find in the syllabus of this Postgraduate Certificate course simulations of clinical cases and complementary readings that will facilitate the acquisition of knowledge and transfer this knowledge to their daily practice.

A program taught in a completely online mode, which gives the professional the opportunity to advance their career through a flexible university qualification. They will only need an electronic device with which to access the entire syllabus hosted entirely on the virtual platform. This will allow the professional to distribute the teaching load according to their needs. Likewise, the *Relearning* system, applied by TECH in all its programs, will allow students to progress through the program in a more natural and progressive way. Comfort, agility accompany this intensive and high-level knowledge.

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 flexible academic option that will allow you to learn about the most recent advances in Neuroanatomy"



An excellent opportunity for you to learn about the neural connections that occur in the brain. Enroll now"

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 during the academic year. For this purpose, the student will be assisted by an innovative interactive video system created by renowned and experienced experts.

Thanks to this Postgraduate Certificate, you will be able to acquire an intensive learning about the nervous system-immune system relationship.

Just click and go on a learning journey to the neuron, the synapse or the neurotransmitters.







## tech 10 | Objectives



## **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 basic fundamentals of neuroanatomy



TECH provides you with all the didactic tools you need in this program to advance your professional career"



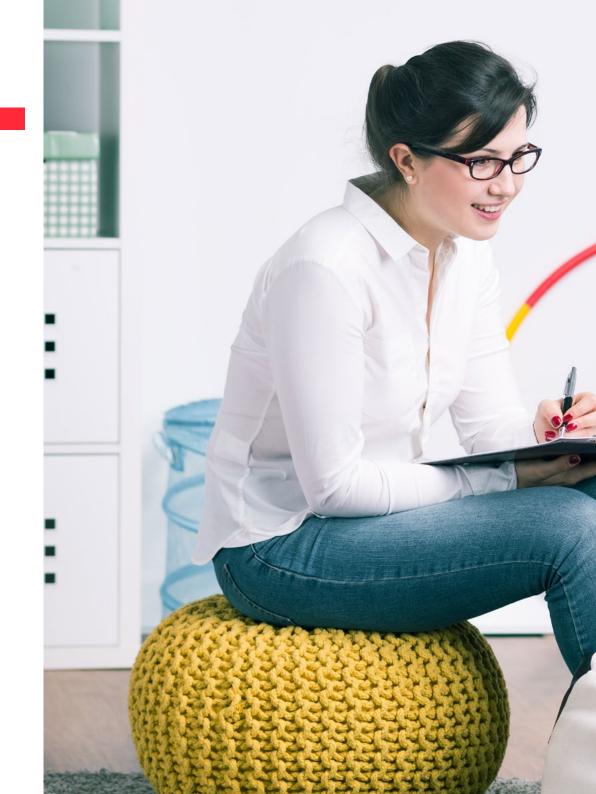




## tech 14 | Structure and Content

### 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 Neuron and its Composition
  - 1.3.1. Introduction to the Neuron and its Function
  - 1.3.2. The Neuron 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



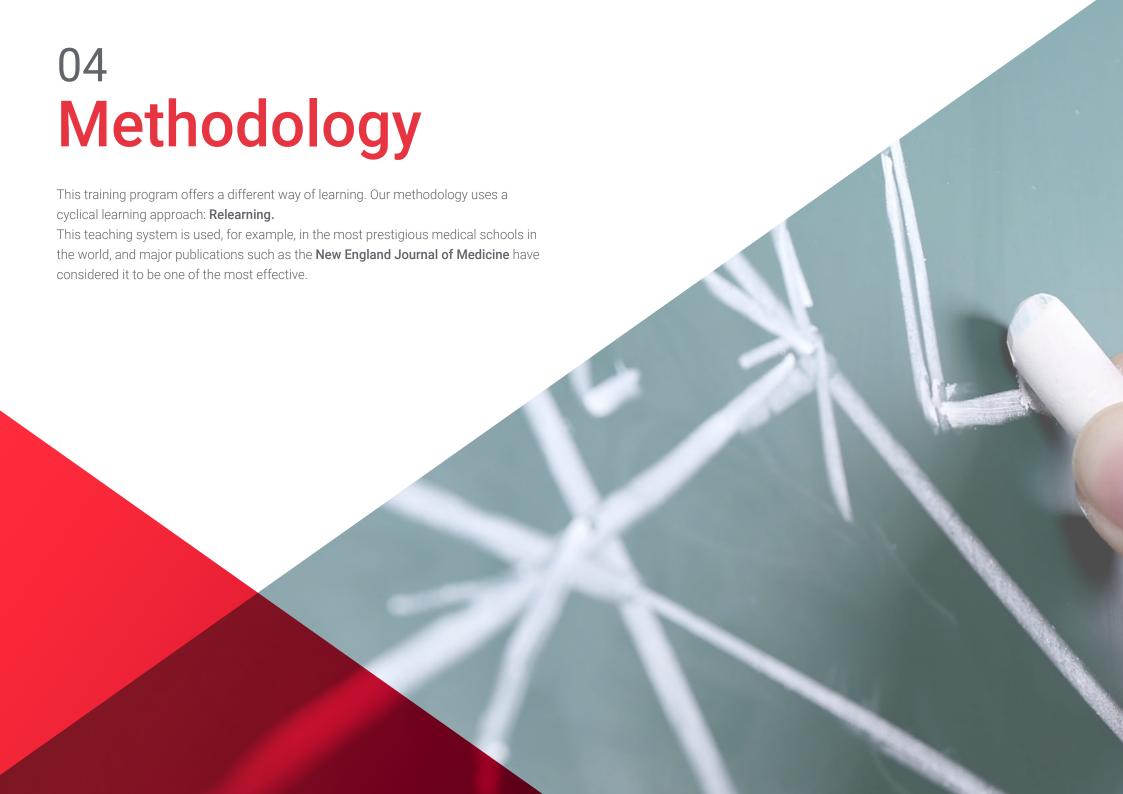


## Structure and Content | 15 tech

- 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 the Nervous System
  - 1.8.2. Bases and Characteristics
- 1.9. Nervous System in Adulthood
  - 1.9.1. Bases and Characteristics of the Nervous System
- 1.10. Nervous System in Old Age
  - 1.10.1. Bases and Characteristics of the Nervous System in Old Age
  - 1.10.2. Main Related Problems



Enroll now in a Postgraduate Certificate that will help you better understand how your students' brains work"





## tech 18 | Methodology

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

In a given situation, what should a professional do? Throughout the program students will be presented with multiple simulated cases based on real situations, where they will have to investigate, establish hypotheses and, finally, resolve the situation. There is an abundance of scientific evidence on the effectiveness of the method.

With TECH, educators can experience a learning methodology that is shaking the foundations of traditional universities around the world.



It is a technique that develops critical skills and prepares educators to make decisions, defend their arguments, and contrast opinions.



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:

- Educators 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 is solidly focused on practical skills that allow educators to better integrate the knowledge into daily practice.
- **3.** Ideas and concepts are understood more efficiently, given that the example situations are based on real-life teaching.
- 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.



## tech 20 | Methodology

### 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 case studies with a 100% online learning system based on repetition, combining a minimum of 8 different elements in each lesson, which represent a real revolution with respect to simply studying and analyzing cases.

Educators will learn through real cases and by solving complex situations in simulated learning environments. These simulations are developed using state-of-the-art software to facilitate immersive learning.



### Methodology | 21 tech

At the forefront of world teaching, the Relearning method has managed to improve the overall satisfaction levels of professionals who complete their studies, with respect to the quality indicators of the best online university (Columbia University).

With this methodology we have trained more than 85,000 educators with unprecedented success in all specialties. All this in a highly demanding environment, where the students have a strong socio-economic profile and an average age of 43.5 years.

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 our learning system is 8.01, according to the highest international standards.

## tech 22 | Methodology

This program offers the best educational material, prepared with professionals in mind:



### **Study Material**

All teaching material is produced by the specialist educators 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.



### **Educational Techniques and Procedures on Video**

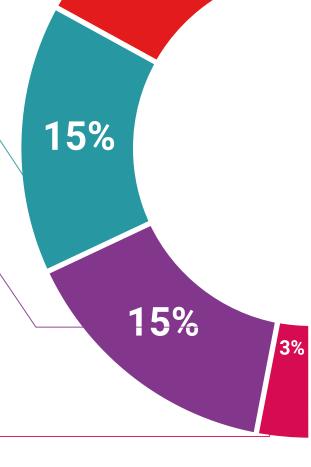
TECH introduces students to the latest techniques, with the latest educational advances, and to the forefront of Education. All this, first-hand, with the maximum rigor, explained and detailed for your assimilation and understanding. And best of all, you can watch them as many times as you want.



### **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 multimedia content presentation training Exclusive system 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 your goals.



### Classes

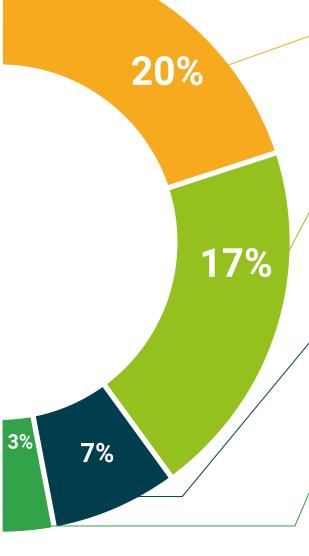
There is scientific evidence suggesting that observing third-party experts can be useful.

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.







## tech 26 | Certificate

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 certificate 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.



technological university

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