





## Postgraduate Certificate CNS and PNS Electrotherapy

Course Modality: Online

Duration: 6 weeks

Certificate: TECH Technological University

Official N° of Hours: 150 h.

Website: [www.techtute.com/medicine/postgraduate-certificate/cns-pns-electrotherapy](http://www.techtute.com/medicine/postgraduate-certificate/cns-pns-electrotherapy)

# 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 nervous system consists of the central and peripheral systems. Both function as one, continuously. When an injury occurs in one of them, the other is affected, so it is not surprising that when Electrotherapy is performed, improvement in both is expected. The program focused on this topic will seek to provide students with the criteria to make an assessment of the nerve injury, which will favor the choice of an appropriate neural therapy.





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*Know the importance of the structures involved in the nervous system and perform a proper assessment in the face of an injury”*

The nervous system is defined as a network of tissues and structures that are responsible for processing and generating a response to environmental stimuli. For this reason, when an injury occurs in any of its structures, different basic functions of the organism are affected. A good evaluation is essential in these cases, since a minimally invasive therapy must be used afterwards to ensure the patient's recovery.

For this reason, a program has been designed to provide students interested in rehabilitation medicine with the principles to establish an assessment of a nerve injury, as well as the main currents involved in the neurological rehabilitation of the structures involved.

All the content is available in a 100% online modality that provides the student with the ease of being able to study it comfortably, wherever and whenever they want. All you need is a device with internet access to take your career one step further. A modality according to the current times with all the guarantees to position the professional in a highly demanded sector.

This **Postgraduate Certificate in CNS and PNS Electrotherapy** is the most comprehensive and up-to-date scientific program on the market. The most important features of the program include:

- More than 75 practical cases presented by experts in electrotherapy
- The graphic, schematic, and eminently practical contents with which they are created provide scientific and practical information on the disciplines that are essential for professional
- New developments on the role of the rehabilitation physician in the application of electrotherapy
- Practical exercises where self-assessment can be used to improve learning
- Algorithm-based interactive learning system for decision-making in the situations that are presented to the student
- Its special emphasis on research methodologies on electrotherapy applied to Rehabilitation Medicine
- 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



*Make this program the perfect opportunity to take your career to the next level"*

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*Learn about the main trends in neurological rehabilitation with a program that adapts to your academic and professional needs”*

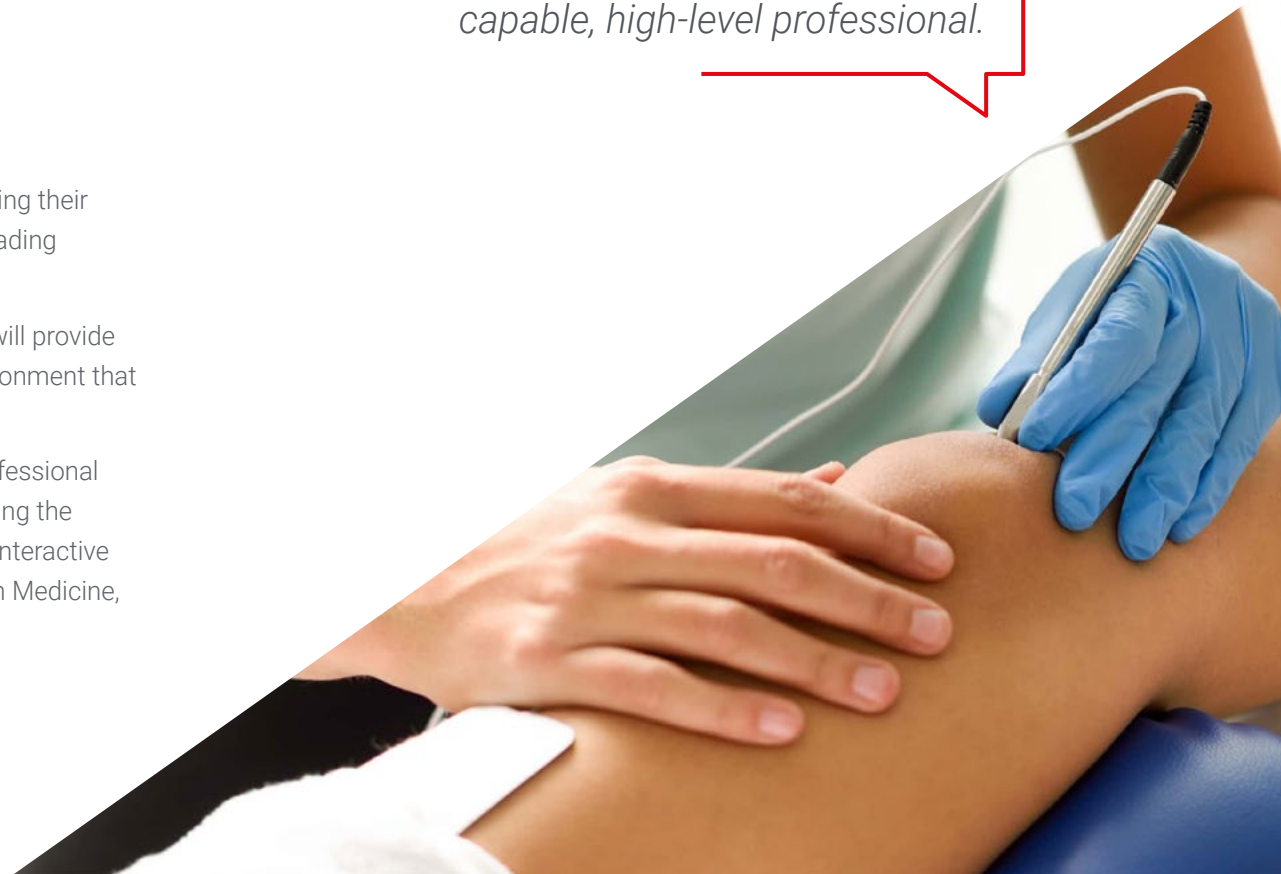
The teaching staff includes professionals from the field of medicine, who bring their experience to this training program, as well as renowned specialists from leading societies and prestigious universities.

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 training programmed to train 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, the professional will have the help of an innovative interactive video system made by recognized experts in Electrotherapy in Rehabilitation Medicine, with great experience.

*Learn the application of Electrotherapy in motor rehabilitation cases and improve the diagnosis of patients in your care.*

*Learn the basics of non-invasive brain stimulation and position yourself as a capable, high-level professional.*



# 02

# Objectives

Mastering this professional field can make a difference in the work environment. For this reason, with the general and specific objectives set out in this Postgraduate Certificate, students interested in Electrotherapy applied to the CNS and PNS, will be guaranteed to know the main currents in the rehabilitation of the structures affected by an injury. Through an approach focused on effectiveness, knowledge will be taken to the highest level to encourage scientific discussion around this topic.







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*Apply electrotherapy in those cases necessary to meet the objectives set out in this program"*



## General Objectives

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- ♦ Update the knowledge of the Rehabilitation Medicine professional in the field of Electrotherapy
- ♦ Promote work strategies based on a comprehensive approach to the patient as a standard model for achieving excellent care
- ♦ Encourage the acquisition of technical skills and abilities, through a powerful audiovisual system, and the possibility of development through online simulation workshops and/or specific training
- ♦ Encourage professional stimulation through continuing education and research





## Specific Objectives

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- Establish criteria for nerve injury assessment
- Know the main trends in neurological rehabilitation
- Learn the application of electrotherapy in cases of motor rehabilitation
- Know the basics of non-invasive brain stimulation

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*This Postgraduate Certificate will be your ally when it comes to acquiring the necessary skills of a rehabilitation medicine professional"*

# 03

## Course Management

We put at your service the competence and direction of specialists with long experience in the application of the different systems and techniques of Electrotherapy, professionals chosen for their wide prestige in the profession. All of them have an excellent background in rehabilitation medicine and are professionals with years of teaching experience that offer the student of the program, the most complete, direct and real vision of the work with Electrotherapy in rehabilitation medicine.





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*Become a renowned professional with the experience of a group of highly qualified experts in Electrotherapy”*

## Management



### **Dr. del Villar Belzunce, Ignacio**

- ♦ Head of the Rehabilitation and Physical Medicine Department of the Rey Juan Carlos I Hospital in Móstoles. Madrid.
- ♦ Specialist in Physical Medicine and Rehabilitation, University Hospital La Paz, Madrid.
- ♦ Head of the Rehabilitation and Physical Medicine Associate Department of the Rey Juan Carlos I Hospital in Móstoles.
- ♦ Specialist Physician in the Rehabilitation and Physical Medicine Service of the Rey Juan Carlos I Hospital in Móstoles.
- ♦ Professor of ultrasound-guided interventional techniques in the locomotor system Quirón Salud
- ♦ Degree in Medicine and Surgery from the University of Zaragoza.
- ♦ Specialist in Physical Medicine and Rehabilitation, University Hospital La Paz, Madrid.



## Professors

### Dr. Pulido Poma, Rosa Mercedes

- ◆ Physician specializing in Physical Medicine and Rehabilitation in the Rehabilitation Service of the Hospital Universitario Rey Juan Carlos Móstoles, Madrid.
- ◆ Physician specializing in Physical Medicine and Rehabilitation At Santa Rosa Hospital, Lima, Peru.
- ◆ Physician specializing in Physical Medicine and Rehabilitation Alberto L. Barton Hospital Callao, Peru.
- ◆ Surgeon, San Fernando School of Medicine - Universidad Nacional Mayor de San Marcos, Lima, Peru..
- ◆ Surgeon, San Fernando School of Medicine - Universidad Nacional Mayor de San Marcos, Lima, Peru.

### Dr. López Hermoza, Jenny Gladys

- ◆ Assistant Physician, Rehabilitation Service, Hospital Rey Juan Carlos.
- ◆ Resident Physician of Physical Medicine and Rehabilitation, Fundación Jiménez Díaz University Hospital, Madrid.
- ◆ Surgeon from Mayor de San Marcos National University Lima-Peru, with homologation to Medical Degree in Spain.
- ◆ Specialist in Family and Community Medicine at the ADM Sureste of Madrid.
- ◆ Doctorate Courses s Degree in Biomedical Sciences at the Complutense University of Madrid. Presentation of work as research proficiency: "Anemia as a prevalent factor in Heart Failure", with the qualification of outstanding in obtaining the diploma of advanced studies (DEA).

04

# Structure and Content

This program is designed to convert the student's work and dedication to learning into real, measurable achievements that maintain stimulation and motivation throughout the process. In this way, and following the recommendations of an excellent teaching staff, a broad vision is offered on the criteria to establish the evaluation of a nerve injury, as well as the main techniques that should be used at the time of starting an Electrotherapy. Throughout the modules that make up the Postgraduate Certificate, students will study each and every one of the aspects that the rehabilitation physician must master to ensure their competence in this type of intervention.







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*A complete and highly topical syllabus that will keep you motivated thanks to the many case studies that will prepare you for professional work"*

### Module 1. CNS and PNS Electrotherapy

- 1.1. Assessment of Nerve Injury Principles of Innervation
- 1.2. Main Trends in Neurological Rehabilitation
- 1.3. Electrotherapy for Motor Rehabilitation in the Patient
- 1.4. Electrotherapy for Somatosensory Rehabilitation in Neurological Patients
- 1.5. Electromodulation
- 1.6. Noninvasive Brain Stimulation: Introduction
- 1.7. Transcranial Magnetic Stimulation
- 1.8. Transcranial Direct Current
- 1.9. Practical Applications
- 1.10. Contraindications





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*Learn thanks to the most updated program in CNS and PNS Electrotherapy”*

05

# Methodology

This training program provides you with a different way of learning. Our methodology uses a cyclical learning approach: **Re-learning**.

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 Re-learning, 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 abundant scientific evidence on the effectiveness of the method. Specialists learn better, faster, and more sustainably over time.

*With TECH you will experience a way of learning that is shaking the foundations of traditional universities around the world.*



According to Dr. Gervas, 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 physician'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. Students who follow this method not only achieve the assimilation of concepts, but also a development of their mental capacity, through exercises that evaluate real situations and the application of knowledge.
2. Learning is solidly translated into practical skills that allow the student to better integrate into the real world.
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.



## Re-Learning Methodology

At TECH we enhance the Harvard case method with the best 100% online teaching methodology available: Re-learning.

This 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, a real revolution with respect to the mere study and analysis of cases.



*Professionals will learn through real cases and by resolving 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 Re-learning method has managed to improve the overall satisfaction levels of professionals who complete their studies, with respect to the quality indicators of the best Spanish-speaking online university (Columbia University).

With this methodology, more than 250,000 physicians have been trained with unprecedented success in all clinical specialties regardless of surgical load. Our pedagogical methodology is developed in a highly competitive environment, with a university student body with a high socioeconomic profile and an average age of 43.5 years old.

*Re-learning 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 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.



#### Surgical Techniques and Procedures on Video

TECH introduces students to the latest techniques, the latest educational advances and 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 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 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 & Re-testing**

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 on the usefulness of learning by observing experts: The system termed Learning from an Expert strengthens knowledge and recall capacity, and generates confidence in the face of difficult decisions in the future.



**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 CNP and PNS Electrotherapy guarantees you, in addition to the most rigorous and up-to-date training, access to a Postgraduate Certificate issued by TECH Technological University.



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*Successfully complete this training program and receive your diploma without travel or laborious paperwork”*

This **Postgraduate Certificate in CNS and PNS Electrotherapy** 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 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 from career evaluation committees.

Title: **Postgraduate Certificate in CNS and PNS Electrotherapy**

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  
online training  
development languages  
virtual classroom



**Postgraduate  
Certificate**

CNS and PNS  
electrotherapy

Course Modality: Online

Duration: 6 weeks

Certificate: TECH Technological University

Official N° of Hours: 150 h.

# Postgraduate Certificate

## CNS and PNS electrotherapy

