

Postgraduate Certificate

High Frequency Electrotherapy for Physiotherapy



Postgraduate Certificate High Frequency Electrotherapy for Physiotherapy

- » Modality: Online
- » Duration: 12 weeks
- » Certificate: TECH Technological University
- » Dedication: 16h/week
- » Schedule: at your own pace
- » Exams: online

Website: www.techtitute.com/pk/physiotherapy/postgraduate-certificate/high-frequency-electrotherapy-physiotherapy

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01

Introduction

In spite of its constant evolution since ancient times, the most important advances in electrotherapy have taken place in the last two centuries, being one of the most indispensable techniques in physiotherapy centers today. Among different methods, High Frequency Electrotherapy stands out for its use and effectiveness in pain and inflammation reduction in multiple types of pathologies, being protagonist of the most outstanding advances. This Certificate was created to deepen in this subject and to offer an adequate and complete update for all Communication Management working in this specialty. All this in 100% online mode, with absolute freedom of schedules and the most innovative multimedia content.





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Thanks to this Postgraduate Certificate in High Frequency Electrotherapy, you will be able to update and improve your knowledge in the treatment of musculoskeletal injuries"

New technologies have changed the world in every possible field and in all professional areas. Physiotherapy and some of its most relevant techniques, such as Electrotherapy, have also undergone an important evolution and changes in their principles of operation and application. That is why techniques such as High Frequency Electrotherapy are in full growth and upswing, thanks to its effectiveness in pain and inflammation treatment in cases such as post-traumatic sequelae, osteoarthritis, muscle contractures and many other pathologies.

It is in this scenario that the Postgraduate Certificate in High Frequency Electrotherapy arises, so that Physiotherapist can answer all their questions, deepen in the most relevant concepts and receive the latest updates in this field. All this, with complete and detailed information, prepared by leading experts in Electrotherapy and dealing with topics such as physical fundamentals of high frequency, short wave contraindications, microwave practical applications or bipolar application, among many other relevant concepts.

Thanks to the best multimedia didactic material and the most recent TECH educational technologies, with this program you can acquire precise knowledge, in a much more visual and dynamic way than usual. In addition, being a 100% online university education, students can assume their learning without any time limitation, from any device with internet connection and being able to combine it with their work and responsibilities.

This **Postgraduate Certificate in High Frequency Electrotherapy for Physiotherapy** contains the most complete and up-to-date scientific program on the market. The most important features include:

- The development of case studies presented by experts in High Frequency Electrotherapy
- The graphic, schematic, and practical contents with which they are created, provide 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 work
- Content that is accessible from any fixed or portable device with an Internet connection



It stands out in a growing sector with great projection such as High Frequency Electrotherapy without need for travel and at any time of the day"

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Broaden your skills and update your knowledge on Bipolar and Tetrapolar Application”

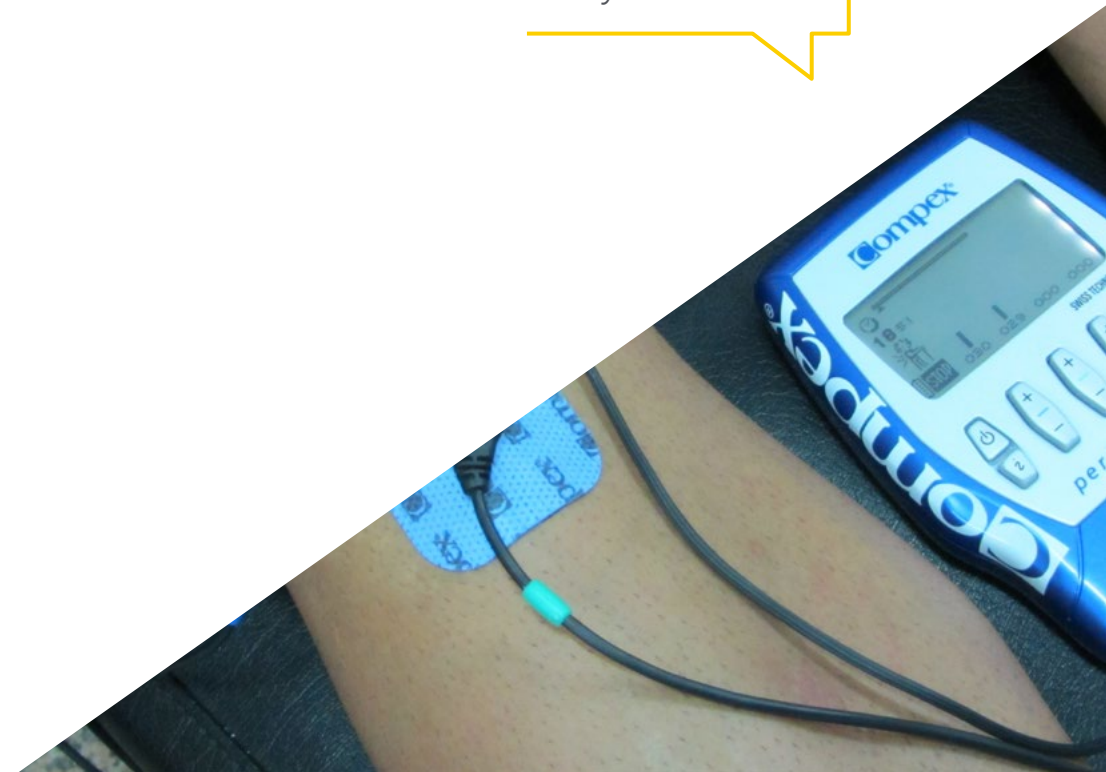
The program’s teaching staff includes professionals from sector who contribute their work experience to this educational program, as well as renowned specialists from leading societies and prestigious universities.

Its multimedia content, developed with the latest educational technology, will allow the professional a situated and contextual learning, that is, a simulated environment that will provide an immersive education programmed to prepare for real situations.

The program design focuses on Problem-Based Learning, by means of which the professional must try to solve the different professional practice situations that are presented throughout the academic course. For this purpose, the student will be assisted by an innovative interactive video system created by renowned experts.

Deepen your knowledge and become an expert in Tecartherapy.

Access to the best materials and innovations in High Frequency Electrotherapy with this University Certificate.



02 Objectives

The design of this Postgraduate Certificate in High Frequency Electrotherapy for Physiotherapy looks for student to acquire necessary competences and skills to be updated in this subject, deepening also in key aspects and principles. This way, you will be able to take on your present and future career with certainty and ambition. In addition, in order to do this, you will have the most accurate, dynamic and updated materials and content possible.





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Give your career the drive it needs and specialize in practical applications of shortwave and microwave”



General Objectives

- To update the knowledge of the rehabilitation professional in the field of electrotherapy
- To promote work strategies based on integral approach to the patient as a reference model in the achievement of healthcare excellence
- To encourage the acquisition of technical skills and abilities, through a powerful audiovisual system, and the possibility of development through online workshops for simulation and/or specific qualification
- Encourage professional stimulation through continuous education and research





Specific Objectives

Module 1. High Frequency Electrotherapy for Physiotherapy

- ♦ To update your knowledge of Electrotherapy in the field of rehabilitation of patients with neurological pathology
- ♦ To renew the concepts about the physiology of Electrotherapy in the neuromusculoskeletal patient

Module 2. General Principles of Electrotherapy

- ♦ To learn about new applications of electromagnetic agents in rehabilitation of neurological patients
- ♦ To understand the scope of new invasive electrotherapy applications for pain modulation



You will achieve your goals thanks to the most innovative tools and the expert teaching team that TECH offers you"

03

Course Management

In its commitment to offer an elite education to all its students, TECH works with renowned professionals who guarantee acquisition of a solid knowledge in the High Frequency Electrotherapy specialty. This way, the teaching team will be at your complete disposal to share their knowledge and experience, as well as to answer any questions you may have.



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Succeed with the best and acquire necessary knowledge and skills to face a promising future with High Frequency Electrotherapy for Physiotherapy"

Management



Dr. León Hernández, Jose Vicente

- ♦ Expert Physiotherapist in the Study and Pain Treatment and Manual Therapy
- ♦ Doctorate in Physiotherapy from the Rey Juan Carlos University
- ♦ Master's Degree in the Study and Treatment of Pain from the Rey Juan Carlos University
- ♦ Degree in Chemical Sciences from the Complutense University of Madrid, specializing in Biochemistry
- ♦ Diploma in Physiotherapy from the Alfonso X el Sabio University
- ♦ Member and training coordinator at the Institute of Neuroscience and Movement Sciences

Professors

Suso Martí, Luis

- ♦ Physiotherapist
- ♦ Researcher at the Institute for Neurosciences and Movement Sciences
- ♦ Contributor to the popular science magazine NeuroRhab News
- ♦ Physiotherapy Degree: University of Valencia
- ♦ Doctorate, Autonomous University of Madrid
- ♦ Degree in Psychology. Open University of Catalonia
- ♦ Master's Degree in "Advanced Physiotherapy in Pain Management"

Losana Ferrer, Alejandro

- ♦ Clinical Physiotherapist and New Rehabilitation Technologies Trainer at Rebiotex
- ♦ Physiotherapist at Clínica CEMTRO
- ♦ Professional Master's Degree in Advanced Physiotherapy in Musculoskeletal Pain Management
- ♦ Expert in Neuroorthopedic Manual Therapy
- ♦ Higher University Education in Therapeutic Exercise and Invasive Physiotherapy for Musculoskeletal Pain
- ♦ Graduate in Physiotherapy at La Salle

Cuenca Martínez, Ferrán

- ♦ Expert Physiotherapist in Pain Treatment
- ♦ Physiotherapist at FisisCranioClinic
- ♦ Physiotherapist at the Institute of Functional Rehabilitation La Salle
- ♦ Researcher at the Centro Superior de Estudios Universitarios CSEU La Salle
- ♦ Researcher at EXINH Research Group
- ♦ Researcher in Motion in Brans Research Group of the Institute of Neuroscience and Movement Sciences (INCIMOV)
- ♦ Neuroscience and Movement Sciences (INCIMOV)
- ♦ Editor-in-Chief of The Journal of Move and Therapeutic Science
- ♦ Editor and publisher of NeuroRehab News magazine
- ♦ Author of Multiple articles Scientific in national and international journals
- ♦ PhD in Medicine and Surgery from the Autonomous University of Madrid
- ♦ Graduate in Physiotherapy from University of Valencia
- ♦ Professional Master's Degree in Advanced Physiotherapy in the Treatment of Pain by UAM

Merayo Fernández, Lucía

- ♦ Expert Physiotherapist in Pain Treatment
- ♦ Physiotherapist in the Navarra Health Service
- ♦ Physiotherapist. Doctor San Martin Ambulatory
- ♦ Degree in Physiotherapy
- ♦ Professional Master's Degree in Advanced Physiotherapy in Musculoskeletal Pain Management

Gurdiel Álvarez, Francisco

- ♦ Physiotherapist at Powerexplosive
- ♦ Physiotherapist at Clínica Fisad
- ♦ Physiotherapist for Sociedad Deportiva Ponferradina
- ♦ D. in Health Sciences from the Universidad Rey Juan Carlos, Spain
- ♦ Degree in Physiotherapy by the University of Leon
- ♦ Degree in Psychology from UNED
- ♦ Professional Master's Degree in Advanced Physiotherapy in Treatment of Musculoskeletal Pain from the Universidad Autónoma de Madrid
- ♦ Expert in Orthopedic Manual Therapy and Myofascial Pain Syndrome by the Universidad Europea

04

Structure and Content

The Syllabus of this Postgraduate Certificate in High Frequency Electrotherapy has been designed by a team of renowned teachers specialized in this field. Their knowledge and outstanding professional trajectory are reflected throughout 2 modules offered, guaranteeing a complete, dynamic, practical and precise content. This way, students will be able to update and deepen their knowledge in the Electrotherapy field, acquiring new competences and improving their skills.





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Expert Syllabus and quality content are the key to becoming an expert in High Frequency Electrotherapy for Physiotherapy"

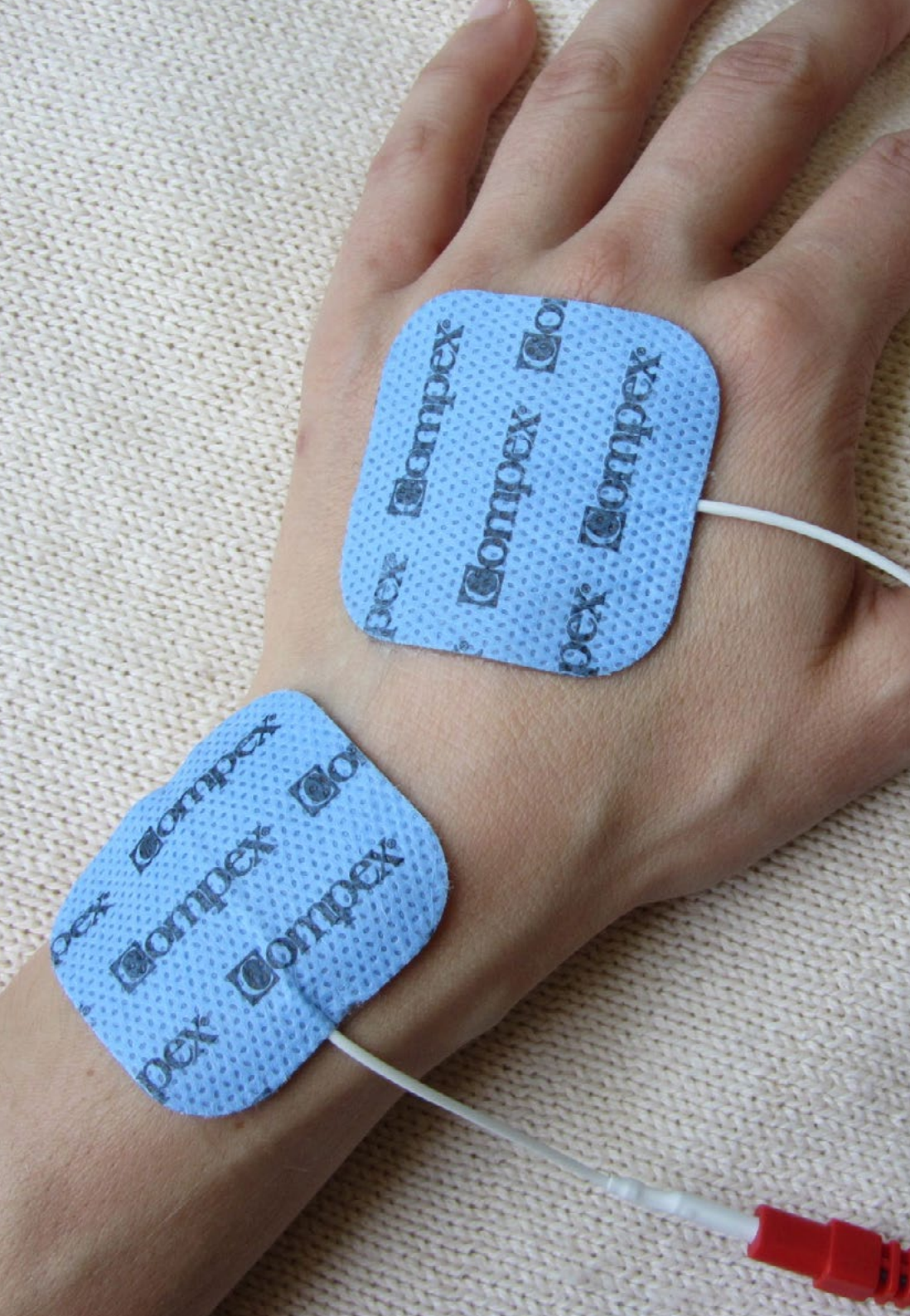
Module 1. High Frequency Electrotherapy for Physiotherapy

- 1.1. Physical Fundamentals of High Frequency
- 1.2. Physiological Effects of High Frequency
 - 1.2.1. Athermal Effects
 - 1.2.2. Thermal Effects
- 1.3. Therapeutic Effects of High Frequency
 - 1.3.1. Athermal Effects
 - 1.3.2. Thermal Effects
- 1.4. Shortwave Fundamentals
 - 1.4.1. Short Wave: Capacitive Application Mode
 - 1.4.2. Short Wave: Inductive Application Mode
 - 1.4.3. Short Wave: Pulsed Emission Mode
- 1.5. Practical Applications of Shortwave
 - 1.5.1. Practical Applications of Continuous Shortwave
 - 1.5.2. Practical Applications of Pulsed Shortwave
 - 1.5.3. Practical Shortwave Applications: Pathology Phase and Protocols
- 1.6. Contraindications of Shortwave
 - 1.6.1. Absolute Contra-indications
 - 1.6.2. Relative Contra-indications
 - 1.6.3. Precautions and Safety Measures
- 1.7. Practical Applications of the Microwave
 - 1.7.1. Microwave Basics
 - 1.7.2. Practical Microwave Considerations
 - 1.7.3. Practical Applications of Continuous Microwave
 - 1.7.4. Practical Applications of Pulsed Microwave
 - 1.7.5. Microwave Treatment Protocols
- 1.8. Contraindications of the Microwave
 - 1.8.1. Absolute Contra-indications
 - 1.8.2. Relative Contra-indications
- 1.9. Fundamentals of Techartherapy
 - 1.9.1. Physiological Effects of Techartherapy
 - 1.9.2. Dosage of Tecartherapy Treatment

- 1.10. Practical Applications of Techartherapy
 - 1.10.1. Arthrosis
 - 1.10.2. Myalgia
 - 1.10.3. Muscle Fibrillar Rupture
 - 1.10.4. Post-puncture Pain of Myofascial Trigger Points
 - 1.10.5. Tendinopathy
 - 1.10.6. Tendon Rupture (Post-Surgical Period)
 - 1.10.7. Wound Healing
 - 1.10.8. Keloid Scars
 - 1.10.9. Edema Drainage
 - 1.10.10. Post-exercise Recovery
- 1.11. Contraindications of Techartherapy
 - 1.11.1. Absolute Contra-indications
 - 1.11.2. Relative Contra-indications

Module 2. General Principles of Electrotherapy

- 2.1. Physical Basis of Electric Current
 - 2.1.1. Brief Historical Recollection
 - 2.2.2. Definition and Physical Basis of Electrotherapy
 - 2.2.2.1. Potential Concepts
- 2.2. Main Parameters of the Electric Current
 - 2.2.1. Pharmacology / Electrotherapy Parallelism
 - 2.2.2. Main Parameters of the Waves: Waveform, Frequency, Intensity, and Pulse Width
 - 2.2.3. Other Concepts: Voltage, Current and Resistance
- 2.3. Frequency-Dependent Classification of Currents
 - 2.3.1. Classification according to Frequency: High, Medium and Low
 - 2.3.2. Properties of Each Type of Frequency
 - 2.3.3. Choice of the Most Suitable Current in Each Case
- 2.4. Waveform-Dependent Current Classification
 - 2.4.1. General Classification: Direct and Alternating or Variable currents
 - 2.4.2. Classification of the Variable Currents: Interrupted and Uninterrupted
 - 2.4.3. Spectrum Concept



- 2.5. Current Transmission: Electrodes
 - 2.5.1. General Information on Electrodes
 - 2.5.2. Importance of Tissue Impedance
 - 2.5.3. General Precautions
- 2.6. Types of Electrodes
 - 2.6.1. Brief Recollection of the Historical Evolution of Electrodes
 - 2.6.2. Considerations on Maintenance and Use of Electrodes
 - 2.6.3. Main Types of Electrodes
 - 2.6.4. Electrophoretic Application
- 2.7. Bipolar Application
 - 2.7.1. Bipolar Application Overview
 - 2.7.2. Electrode Size and Area to be Treated
 - 2.7.3. Application of More Than Two Electrodes
- 2.8. Four-pole Application
 - 2.8.1. Possibility of Combinations
 - 2.8.2. Application in Electrostimulation
 - 2.8.3. Tetrapolar Application in Interferential Currents
 - 2.8.4. General Conclusions
- 2.9. Importance of Polarity Alternation
 - 2.9.1. Brief Introduction to Galvanism
 - 2.9.2. Risks Derived from Load Accumulation
 - 2.9.3. Polar Behavior of Electromagnetic Radiation

“ A program designed to update your knowledge with the latest advances in high frequency therapeutic effects ”

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.





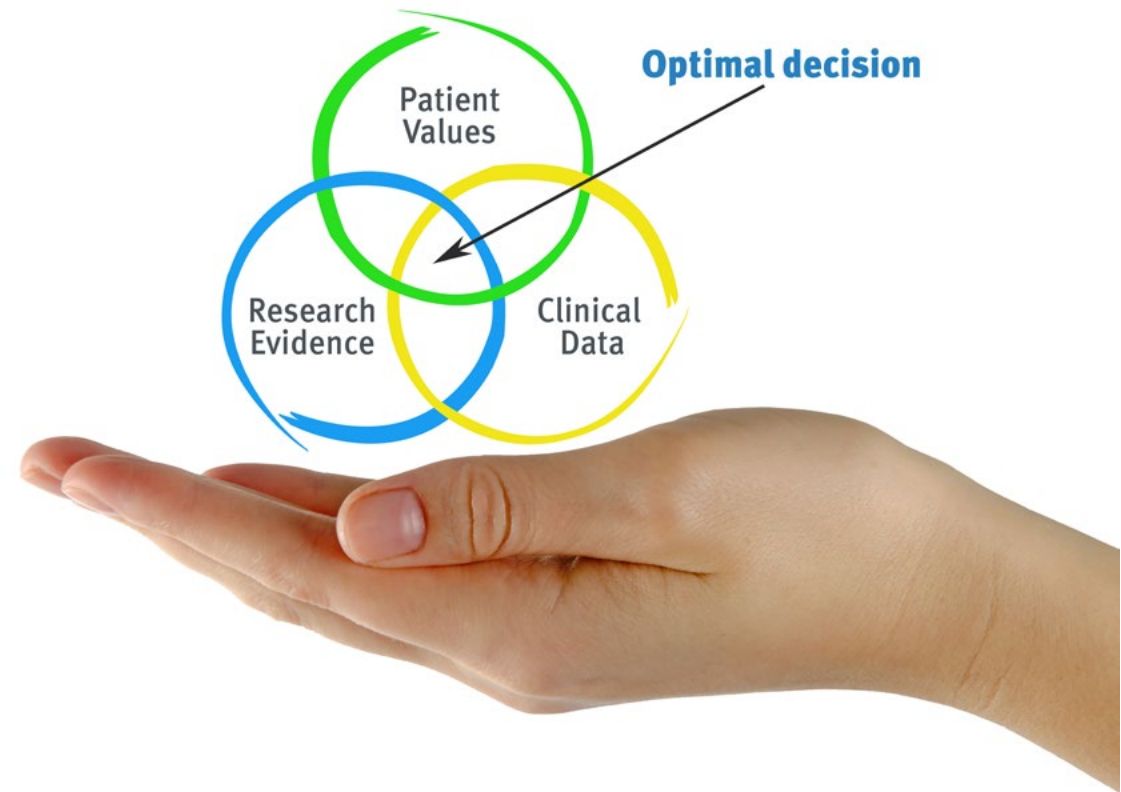
“

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. Physiotherapists/kinesiologists 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. 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 of professional physiotherapy 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. Physiotherapists/kinesiologists 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 physiotherapist/kinesiologist 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.



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 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.



The physiotherapist/kinesiologist 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 trained more than 65,000 physiotherapists/kinesiologists with unprecedented success in all clinical specialties, regardless of the 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 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 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.



Physiotherapy Techniques and Procedures on Video

TECH brings students closer to the latest techniques, the latest educational advances and to the forefront of current Physiotherapy techniques and procedures. 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

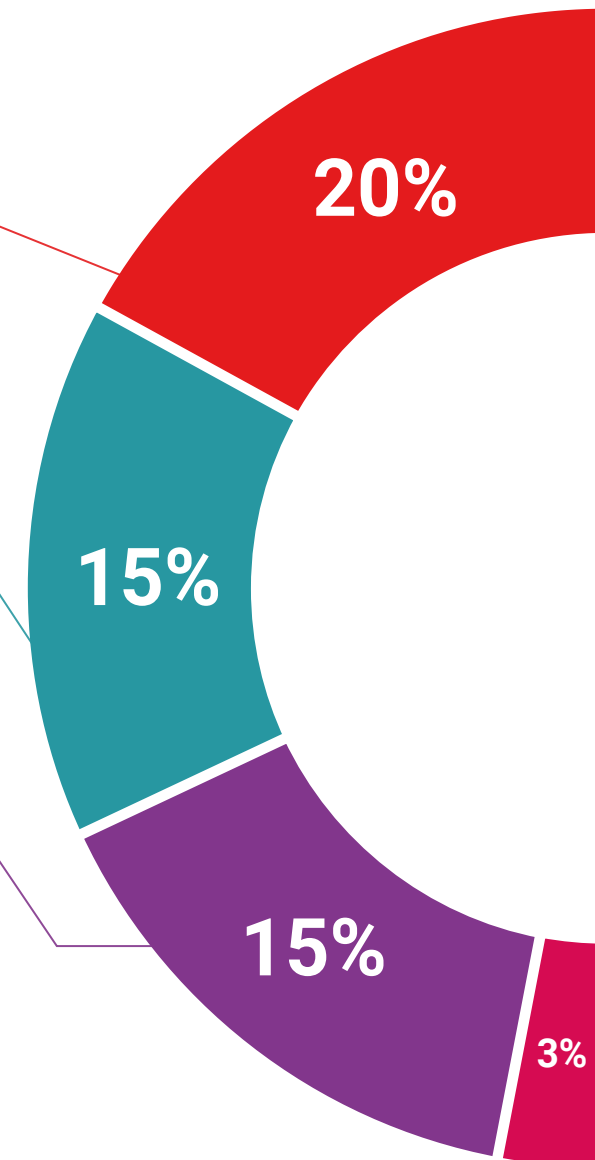
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

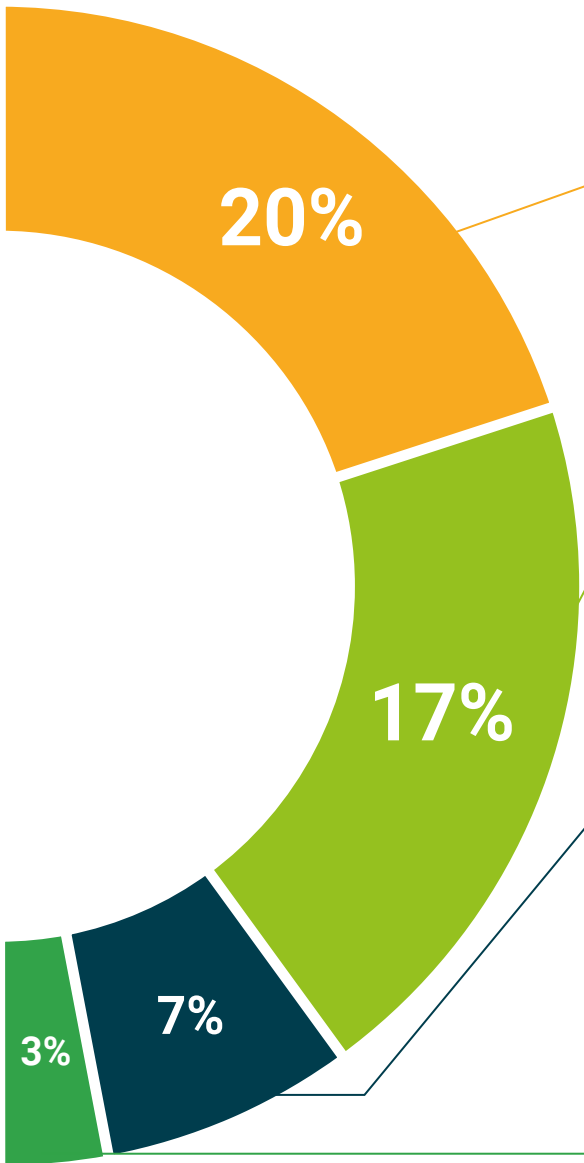
This unique multimedia content presentation training system was awarded by Microsoft as a "European Success Story".



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 their goals.



Classes

There is scientific evidence on the usefulness of learning by observing experts. The system known as 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 High Frequency Electrotherapy for Physiotherapy guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Technological University.



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

This **Postgraduate Certificate in High Frequency Electrotherapy for Physiotherapy** contains the most complete and up-to-date scientific 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 High Frequency Electrotherapy for Physiotherapy**

Official No. of Hours: **300 h.**



*Apostille Convention. In the event that the student wishes to have their paper certificate 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 languages
virtual classroom



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Postgraduate Certificate

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