Postgraduate Diploma

HBOT in Wound Healing, Pain and Physical and Neurological Rehabilitation

Endorsed by the NBA

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Postgraduate Diploma

HBOT in Wound Healing, Pain and Physical and Neurological Rehabilitation

- Modality: **online**
- Duration: **6 months**
- Certificate: **TECH Technological University**
- Dedication: **16h/week**
- Schedule: **at your own pace**
- Exams: **online**

Website: www.techtitute.com/pk/physiotherapy/postgraduate-diploma/postgraduate-diploma-hbot-wound-healing-pain-physical-neurological-rehabilitation

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01

Introduction

Hyperbaric medicine offers physiotherapy professionals a highly effective and safe alternative for the intervention of cases requiring physical and neurological rehabilitation. In this sense, its effectiveness as an accelerator of healing and on pain is a reality that propels this field of work to a higher level of efficacy. As such, TECH has developed this program that aims to prepare physiotherapy professionals in the use of hyperbaric therapy as a means to alleviate physical pain and speed up the healing process. This way, the physiotherapists will acquire a series of skills that will transform them into prestigious professionals in the sector.

Specializing in hyperbaric oxygen therapys is the best option to solve problems of healing, pain and physical and neurological rehabilitation"

The creation of next generation hyperbaric chambers, which are more accessible for use, cost and installation in public and private health institutions, has led different professionals to incorporate this tool into their daily practice.

The Postgraduate Diploma in HBOT in Wound Healing, Pain and Physical and Neurological Rehabilitation will allow the health professional to delve deeper into the use of these mechanisms. The program provides solid and up-to-date education in hyperbaric oxygen therapy, which will allow the physiotherapist to develop the essential skills and abilities to identify and adequately solve different diseases or offer therapeutic practices for which hyperbaric oxygenation can be effective and efficient.

HBOT plays a major role in contributing to the healing process at different stages. Therefore, evidence-based medicine in necrotizing infections, diabetic foot, chronic wounds, vascular ulcers, vasculitis, post-surgical wounds, grafts and flaps, burns and clinical cases of different complex wounds such as pyoderma gangrenosum and others are described.

Therefore, the experience in these wounds with medium pressure chambers and the experimental evidence of the physiological effects triggered at these pressures are presented, which could support the positive evolution experienced with HBOT in the treatment of wounds, with lower pressures than those described in scientific literature.

In addition, there is a new concept of Hyperbaric Medicine that entails the application of analgesia in different diseases that have a chronic pain component. Therefore, evidence is presented in different neurosensitive syndromes, diseases with chronic pain and fibromyalgia. The effect of hyperbaric oxygen on neuropathic pain is also explained through experimental evidence. On the other hand, the principles and evidence of HBOT on the anti-inflammatory effect, ischemia reperfusion injury and antioxidant effect are shown.

The last module is dedicated to the development of HBOT in neurological rehabilitation, a new contribution within Hyperbaric Medicine. It incorporates medium-pressure treatment as an adjuvant to achieve specific effects in post-stroke recovery, autism, cerebral palsy, ischemic encephalopathy and brain trauma. Likewise, the role of hypoxia in neurodegenerative diseases such as Alzheimer's and Parkinson's raises HBOT as a therapeutic option to achieve some benefits and attenuate some symptoms in these progressive pathologies. In sports medicine, the incorporation of accessible and portable cameras has positioned this treatment as an option to improve sports performance and accelerate the recovery of muscle, ligament, tendon and bone injuries.

This **Postgraduate Diploma in HBOT in Wound Healing, Pain and Physical and Neurological Rehabilitation** contains the most complete and up-to-date scientific program on the market. The most important features of the program include:

- Development of practical cases presented by experts in Hyperbaric Medicine
- 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
- Developments in Hyperbaric Medicine
- Practical exercises where the self-assessment process can be carried out to improve learning
- Special emphasis on innovative methodologies in Hyperbaric 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

Don't miss this opportunity to study in the biggest private online university"

This Postgraduate Diploma is the best investment you can make in the selection of a refresher program for two reasons: in addition to updating your knowledge in HBOT in Wound Healing, Pain and Physical and Neurological Rehabilitation, you will obtain a Postgraduate Diploma from TECH Technological University"

This program comes with the best teaching material, providing you with a contextual approach that will facilitate your learning.

This 100% online Postgraduate Diploma will allow you to balance your studies with your professional work while expanding your knowledge in this field.

It includes in its teaching staff professionals belonging to the field of Hyperbaric Medicine, who contribute their work experience to this program, as well as recognized 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, the professional will be assisted by a novel interactive video system made by renowned HBOT experts in Wound Healing, Pain and Physical and Neurological Rehabilitation, and with great experience.

02

Objectives

The program in HBOT in Wound Healing, Pain and Physical and Neurological Rehabilitation is aimed at educating in the fundamentals and applications of hyperbaric oxygen therapy and exposing the scientific evidence in the different specialties in the health field.

With this program, the physiotherapy professional will be able to act safely in the use of HBOT in the treatment of physical and neurological problems, wound healing and pain management"

General Objectives

- Prepare physiotherapy professionals in the fundamentals, mechanisms of action, indications, contraindications and applications of hyperbaric oxygen
- Study the degree of evidence published and the recommendations and indications of the different scientific societies related to Hyperbaric Medicine in the field of physiotherapy
- Recognise the potential applications of hyperbaric oxigen in different clinical cases and the benefits that can be achieved with the treatment, as well as performing the indication and detection of the contraindications

An intensive program that will allow you to become a Postgraduate Diploma in HBOT in Wound Healing, Pain and Physical and Neurological Rehabilitation in a short period of time and with the greatest flexibility"

Specific Objectives

Module 1. HBOT in the Wound Healing Process and Infectious Pathology

- Present the scientific evidence of HBOT in different types of complex wounds and its treatment from physiotherapy
- Study the role of HBOT in wound healing
- Update on the evidence of the physiological therapeutic effects of HBOT in wound healing and medium-pressure
- Demonstrate the experience in these applications with a presentation of clinical cases

Module 2. HBOT in Pain, Rheumatic Diseases and Clinical Medicine

- Describe the effect and scientific evidence of HBOT on altitude sickness
- Demonstrate the mechanism of hyperbaric oxygen on analgesia and experimental evidence
- Study the application of HBOT in rheumatic diseases and neurosensitive syndromes
- Discuss the probable application in the prevention of metabolic pathologies, with inflammatory component or ischemia reperfusion injury
- Present the experience of HBOT in clinical cases of chronic pain, intoxications and clinical medicine

Module 3. HBOT in Physical and Neurological Rehabilitation

- Present the scientific evidence on the neurological indications of HBOT
- Describe the effect of HBOT on physical rehabilitation
- Study the indications of HBOT in sporting injuries and trauma
- Describe the effect of HBOT on recovery and performance in sport
- Discuss the role of hypoxia in the development of neurodegenerative diseases and present the evidence of HBOT on Parkinson's and Alzheimer's
- Present the experience of clinical cases treated with HBOT

03

Course Management

The program's teaching staff includes leading experts in Hyperbaric Medicine who contribute their vast work experience to this program. Additionally, other experts of recognized prestige participate in its design and elaboration completing the program in an interdisciplinary way.

Leading professionals in the field have joined forces to teach you the latest advances in Hyperbaric oxygen therapy for Healing, Pain and Physical and Neurological Rehabilitation"

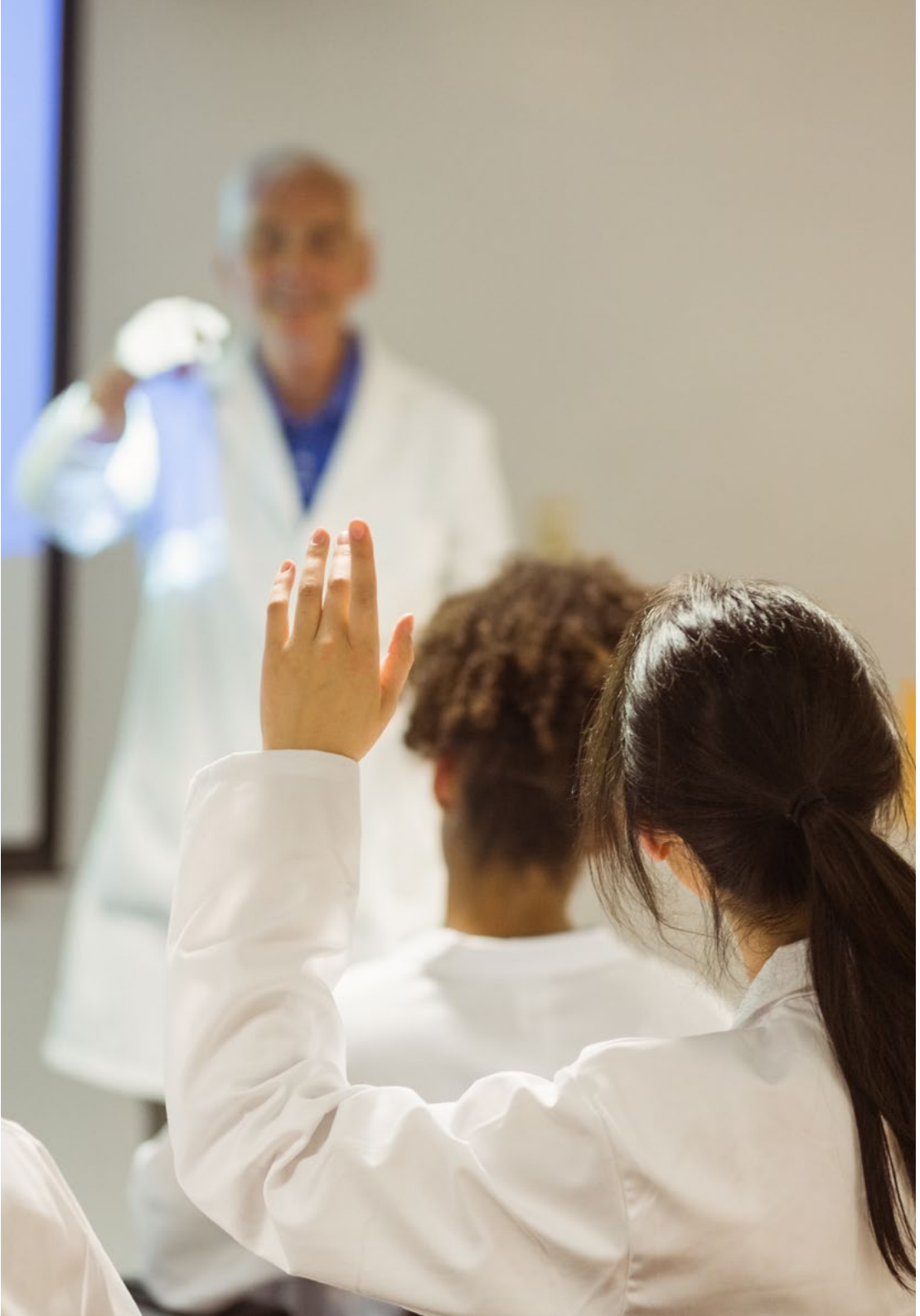
Management

Dr. Cannellotto, Mariana

- Medical Director of the network of Hyperbaric Medicine centers BioBarica Argentina
- Vice President of AAMHEI
- Specialist in Clinical Medicine
- Specialist in Hyperbaric Medicine, School of Medicine

Dr. Jordá Vargas, Liliana

- Scientific Director of the Argentine-Spanish Association of Hyperbaric Medicine and Research (AAMHEI and AEMHEI)
- Scientific Director-Biobarica Clinical Research. International Network of BioBaric Hyperbaric Medicine Centers
- Degree in Biochemistry. National University of Córdoba, Argentina
- Microbiology Specialist
- Head of Microbiology, CRAI North, Cucaiba, Argentina



Professors

Dr. Verdini, Fabrizio

- Institutional Relations AAMHEI
- Clinical Doctor
- Diploma in Public Health Management
- Master's Degree in Healthcare Management

Dr. Ramallo, Rubén Leonardo

- Director of the AAMHEI Medical Clinic Commission
- Specialist in Internal Medicine. Residency in Internal Medicine, Córdoba Hospital
- Medical Surgeon Faculty of Medical Sciences. National University of Córdoba. Argentina
- Master's Degree in Psychoimmunoneuroendocrinology. Favaloro University

Dr. Emilia Fraga, Pilar María

- FINES Teacher
- AAMHEI Pedagogical Assistant

04

Structure and Content

The structure of the contents has been designed by leading professionals in the field of Hyperbaric Medicine, with extensive experience and recognized prestige in the profession, backed by the volume of cases reviewed, studied and diagnosed, and with extensive knowledge of new technologies applied to this field.

This Postgraduate Diploma in HBOT in Wound Healing, Pain and Physical and Neurological Rehabilitation contains the most complete and up-to-date scientific program on the market"

Module 1. HBOT in the Wound Healing Process and Infectious Pathology

1.1. HBOT in Healing Physiology
1.2. Medium Pressure and Wound Healing
  1.2.1. Effective Angiogenesis
  1.2.2. Equivalent Osteogenesis
  1.2.3. Anti-Inflammatory Effect in Medium Pressure
1.3. Necrotizing Infections
1.4. HBOT in Chronic Ulcers and Diabetic Foot
1.5. Burns
1.6. Injuries from Radiofrequency Lesions and Hyperbaric Oxygen
1.7. HBOT in Crush Syndrome
1.8. Vasculitis and HBOT
1.9. HBOT in Pyoderma Gangrenosum
1.10. Evidence of HBOT in Other Injuries and Dermatological Conditions

Module 2. HBOT in Pain, Rheumatic Diseases and Clinical Medicine

2.1. HBOT in Altitude Sickness
2.2. Mechanisms of Action in Analgesia: Neuropathic Pain and Hyperbaric Oxygen
2.3. Arthropathies and Collagenopathies
2.4. HBOT in Dysfunctional Neurosensitive Syndromes
2.5. Fibromyalgia and Hyperbaric Oxygen
2.6. HBOT in Ischemia Reperfusion Injury
2.7. Tinnitus and Sudden Onset Deafness
2.8. Inflammatory Bowel Diseases and Hyperbaric Oxygen
2.9. HBOT in Fertility
2.10. Hyperbaric Oxygen in the Metabolism of Diabetes and Severe Anemia

Module 3. HBOT in Physical and Neurological Rehabilitation

3.1. HBOT in Recovery and Performance in Sport
3.2. Hyperbaric Oxygen and Sporting Injuries
3.3. Brain Trauma and Post-Concussion Syndrome
3.4. Stroke Recovery and Hyperbaric Oxygen
3.5. Cerebral Palsy and HBOT
3.6. Autism
3.7. Ischemic Encephalopathies
3.8. HBOT in Parkinson's Disease
3.9. HBOT in Alzheimer's Disease
3.10. HBOT in Trauma (Avascular Necrosis, Bone Edema, Fractures and Osteomyelitis)

This program will allow you to advance your career in a comfortable way, fully compatible with your work as a physiotherapist"

05

Methodology

This academic program offers students a different way of learning. Our methodology uses a cyclical learning approach: **Relearning.**

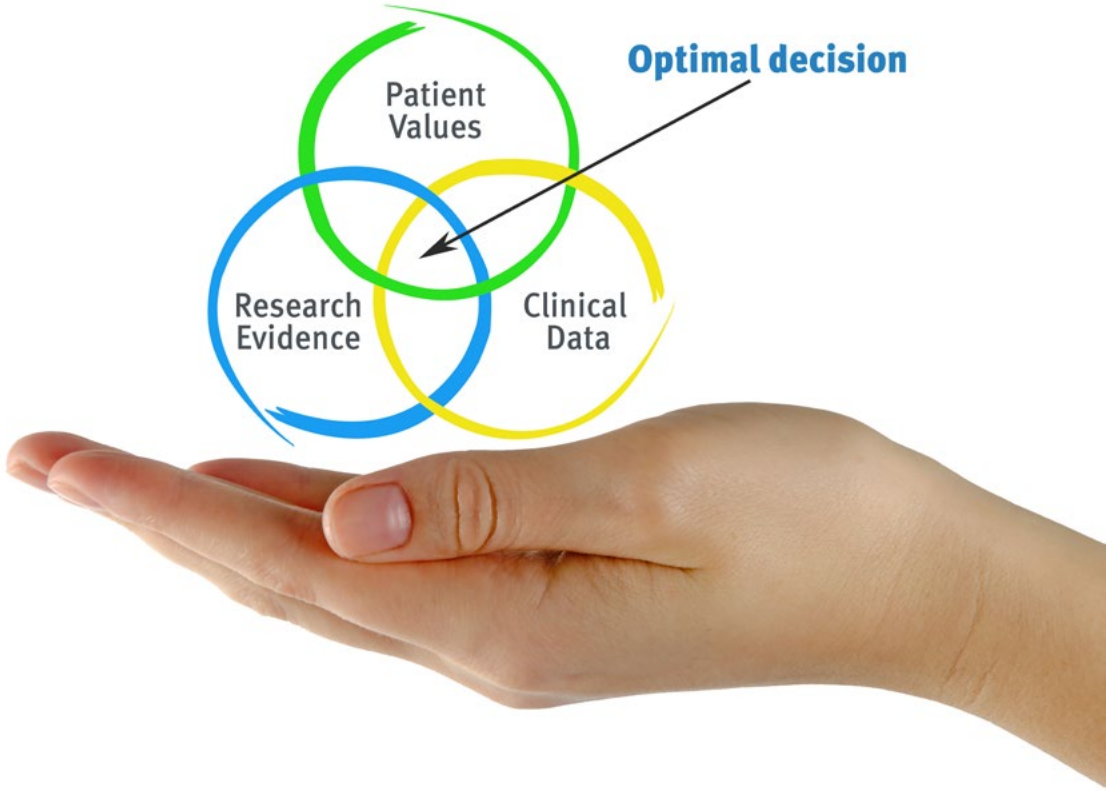
This teaching system is used, for example, in the most prestigious medical schools in the world, and major publications such as the **New England Journal of Medicine** have considered it to be one of the most effective.

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.

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:

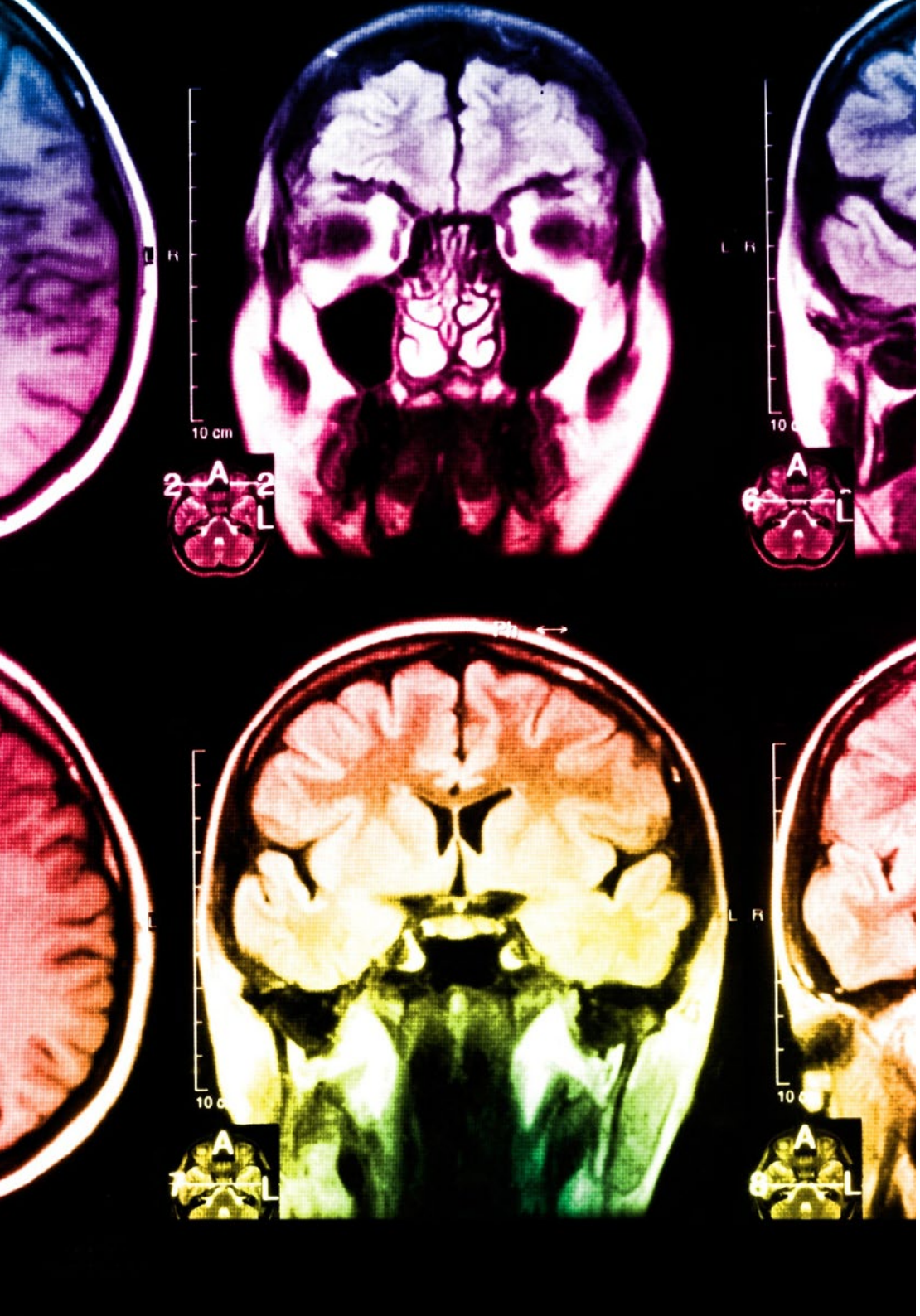
1. Physiotherapists/kinesiologists who follow this method not only grasp concepts, but also develop their mental capacity, by evaluating real situations and applying their knowledge.
2. The learning process has a clear focus on practical skills that allow the physiotherapist/kinesiologist to better integrate 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.

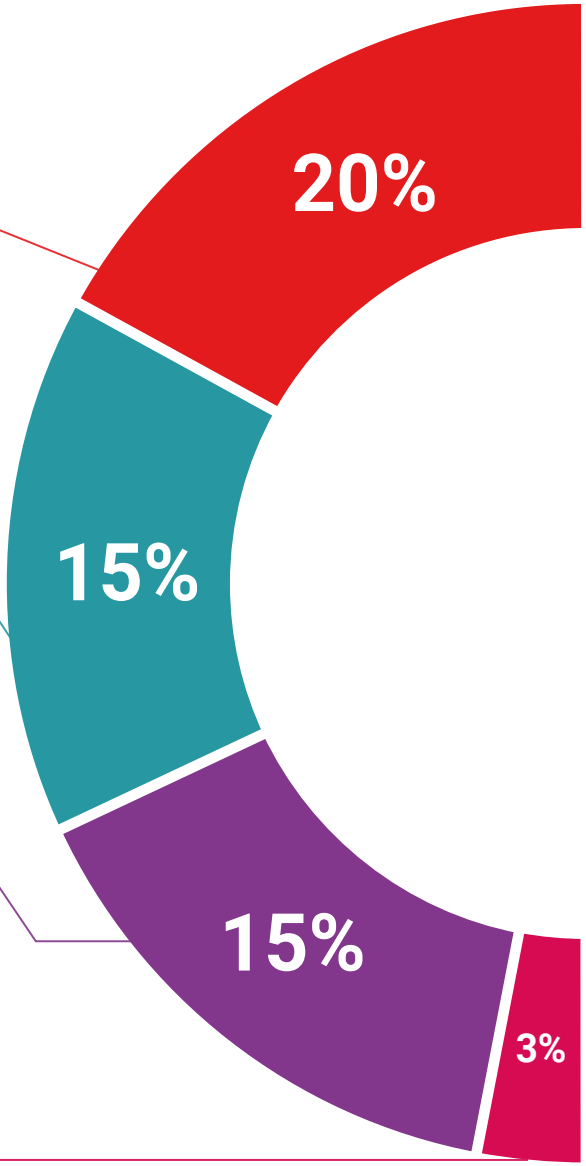
Interactive Summaries

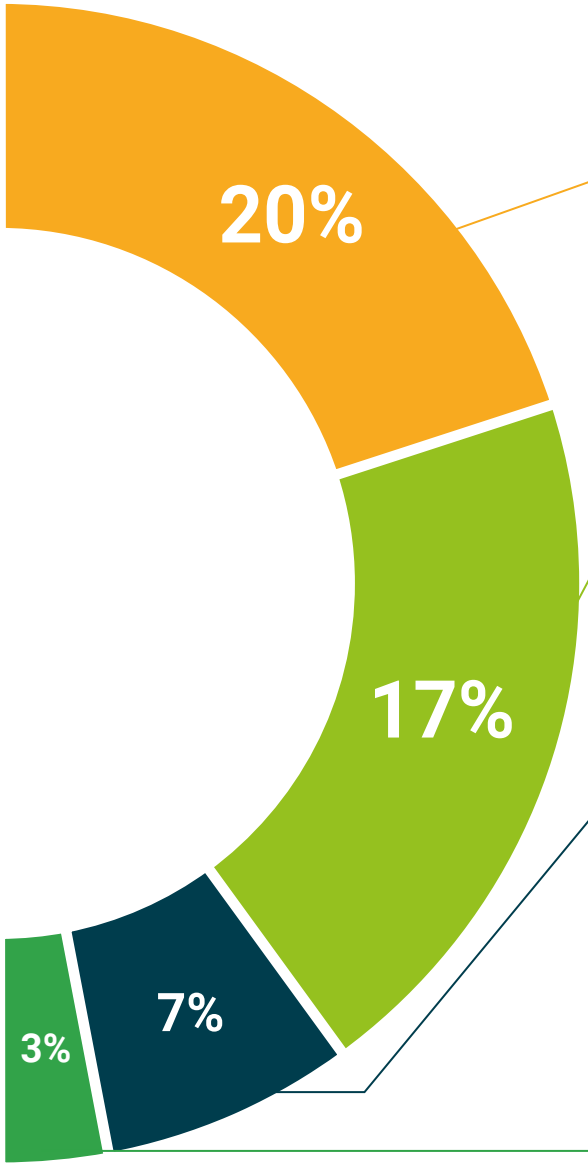
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

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 Diploma in HBOT in Wound Healing, Pain and Physical and Neurological Rehabilitation guarantees students, in addition to the most rigorous and up-to-date education, access to a 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 Diploma in HBOT in Wound Healing, Pain and Physical and Neurological Rehabilitation** contains the most complete and up-to-date educational program on the market.

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

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

Title: **Postgraduate Diploma in HBOT in Wound Healing, Pain and Physical and Neurological Rehabilitation**
Official Nº of Hours: **450 h.**

Endorsed by the NBA

tech technological university

Awards the following

CERTIFICATE

to

Mr./Ms. _____, with identification number _____.

For having passed and accredited the following program

POSTGRADUATE DIPLOMA

in

HBOT in Wound Healing, Pain and Physical and Neurological Rehabilitation

This is a qualification awarded by this University, equivalent to 450 hours, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy.

TECH is a Private Institution of Higher Education recognized by the Ministry of Public Education as of June 28, 2018.

June 17, 2020

Tere Guevara Navarro
Dean

This qualification must always be accompanied by the university degree issued by the competent authority to practice professionally in each country. Unique TECH Code: AFWORD23S techtitute.com/certificates

*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.

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Postgraduate Diploma

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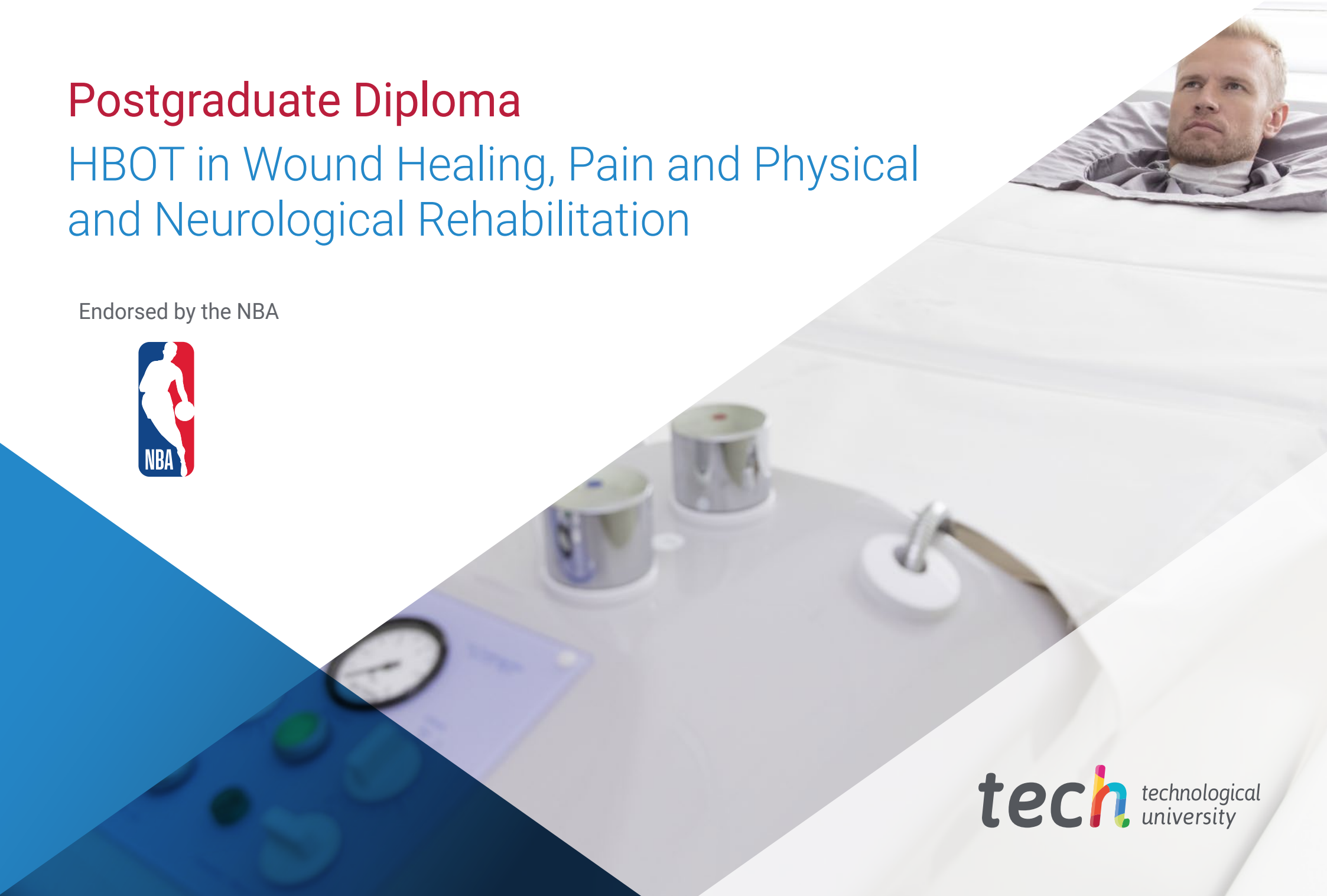

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