

Postgraduate Certificate

HBOT in Physical and Neurological Rehabilitation

Endorsed by the NBA





Postgraduate Certificate HBOT in Physical and Neurological Rehabilitation

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

Website: www.techtitute.com/us/physiotherapy/postgraduate-certificate/hbot-physical-neurological-rehabilitation

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01

Introduction

The use of HBOT in physical and neurological rehabilitation is one of the most interesting and promising developments in this field. In physiotherapy, this type of approach translates into effective and safe alternatives that the practitioner must master. In the neurological case, it incorporates medium-pressure treatment as an adjuvant to achieve specific effects in post-ACV recovery, autism, cerebral palsy, ischemic encephalopathies and brain trauma. Knowledge that you will quickly and comfortably master in this program.





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A high quality Postgraduate Certificate that will allow you to act safely and accurately in HBOT”

There is currently a resurgence in the use of hyperbaric oxygen therapy (HBOT) as an adjuvant tool in different medical specialties. The creation of next generation hyperbaric chambers which are easier to use, more affordable and easier to install in public and private health institutions, has led different professionals to incorporate this tool into their daily practice.

This Postgraduate Certificate in HBOT in Physical and Neurological Rehabilitation shows the benefits and evidence of this specialty, not recognized by the professional societies that perform high-pressure treatment. However, there is not only published evidence, but also the experience of the teachers of this program on the effects of HBOT in this type of pathology.

The role of hypoxia in neurodegenerative diseases such as Alzheimer's and Parkinson's is also presented, which raises HBOT as a therapeutic option to achieve some benefits and attenuate some symptoms in these progressive pathologies. Experimental evidence of HBOT in these patients is also presented.

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. And the advantages of HBOT in bone edema, osteomyelitis and avascular necrosis are taught.

Thanks to this Postgraduate Certificate, the student will acquire the competences to carry out the indication of this treatment for each case.

This Postgraduate Certificate in HBOT in Physical and Neurological Rehabilitation contains the most complete and up-to-date scientific program on the market. The most important features 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
- ♦ News on Hyperbaric Medicine in the field of physiotherapy
- ♦ 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 the opportunity to study at the largest private Spanish-speaking online university. Take the step and join our team"

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

Its teaching staff includes professionals from the field of Hyperbaric Medicine, 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.

The design of this program focuses on problem-based learning, by means of which the specialist must try to solve the different professional practice situations that arise throughout the program. To do so, the professional will be assisted by a novel interactive video system developed by renowned and experienced HBOT experts in Physical and Neurological Rehabilitation.

This program has the best teaching material, which will enable a contextual study that will facilitate your learning.

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



02

Objectives

The Postgraduate Certificate in HBOT in Physical and Neurological Rehabilitation is aimed at teaching the fundamentals and applications of hyperbaric oxygen therapy and exposing the scientific evidence in the different specialties in the field of health. In this sense, during the program, we will delve into their correct use and we will prepare you to be able to put these treatments into practice in your sessions. In this way, you will become a much more competent and prepared professional to work as a physiotherapist in both public and private health institutions.



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Learn how to apply HBOT through a high quality program that will allow you to act as an expert in the field"



General Objectives

- Disseminate the usefulness of hyperbaric oxygen therapy in physiotherapeutic treatments
- 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
- Recognize the potential applications of hyperbaric oxygen 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





Specific Objectives

- ◆ 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 pathologies
- ◆ 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



A unique, key and decisive educational experience to boost your professional development”

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 recognized specialists participate in its design and preparation which means that the program is developed in an interdisciplinary manner.



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We have a team of specialists in the field of Hyperbaric Medicine that will help you to prepare in this field"

International Guest Director

Dr. Peter Lindholm is an eminence in Hyperbaric Medicine and the approach to Respiratory Disorders. His research has been focused on the Pathophysiology of Lung Diving, exploring topics such as Hypoxia and loss of consciousness.

Specifically, this expert has analyzed in depth the effects of the medical condition known as Lungsqueeze, frequent in divers. Among his most important contributions in this area is a detailed review of how glossopharyngeal breathing can extend lung capacity beyond normal limits. In addition, he described the first case series linking glossopharyngeal insufflation with cerebral gas embolism.

At the same time, he has been a pioneer in proposing the term Tracheal Squeeze as an alternative to pulmonary edema in divers who bleed after deep dives. On the other hand, the specialist has shown that exercise and fasting before diving increase the risk of loss of consciousness, similar to hyperventilation. In this way, he has developed an innovative method to use Magnetic Resonance Imaging in the diagnosis of Pulmonary Embolism. In the same way, he has delved into new techniques for measuring hyperbaric oxygen therapy.

Dr. Lindholm also serves as Director of the Endowed Gurnee Chair of Diving and Hyperbaric Medicine Research in the Department of Emergency Medicine at the University of California, San Diego, United States. Likewise, this renowned expert spent several years at Karolinska University Hospital. In that institution he worked as Director of Thoracic Radiology. He also has vast experience in diagnosis by means of clinical imaging based on radiation, and has even given lectures on the subject at the prestigious Karolinska Institute in Sweden. He is also a regular speaker at international conferences and has numerous scientific publications.



Dr. Lindholm, Peter

- ♦ Chair of Hyperpathic Medicine and Diving at the University of California, San Diego, United States
- ♦ Director of Thoracic Radiology at the Karolinska University Hospital
- ♦ Professor of Physiology and Pharmacology at Karolinska Institute in Sweden
- ♦ Reviewer for international scientific journals such as American Journal of Physiology and JAMA
- ♦ Medical Residency in Radiology at the Karolinska University Hospital
- ♦ Doctor of Science and Physiology, Karolinska Institute, Sweden



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

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 the best 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 hyperbaric medicine.





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This Postgraduate Certificate in HBOT in Physical and Neurological Rehabilitation contains the most complete and up to date scientific program on the market"

Module 1. HBOT in Physical and Neurological Rehabilitation

- 1.1. HBOT in Recovery and Performance in Sport
- 1.2. Hyperbaric Oxygen and Sporting Injuries
- 1.3. Brain Trauma and Post-Concussion Syndrome
- 1.4. Stroke Recovery and Hyperbaric Oxygen
- 1.5. Cerebral Palsy and HBOT
- 1.6. Autism
- 1.7. Ischemic Encephalopathies
- 1.8. HBOT in Parkinson's Disease
- 1.9. HBOT in Alzheimer's Disease
- 1.10. HBOT in Trauma (Avascular Necrosis, Bone Edema, Fractures and Osteomyelitis)



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Take the opportunity to learn about the latest advances in this area in order to apply it to your daily practice”

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.





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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. 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 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

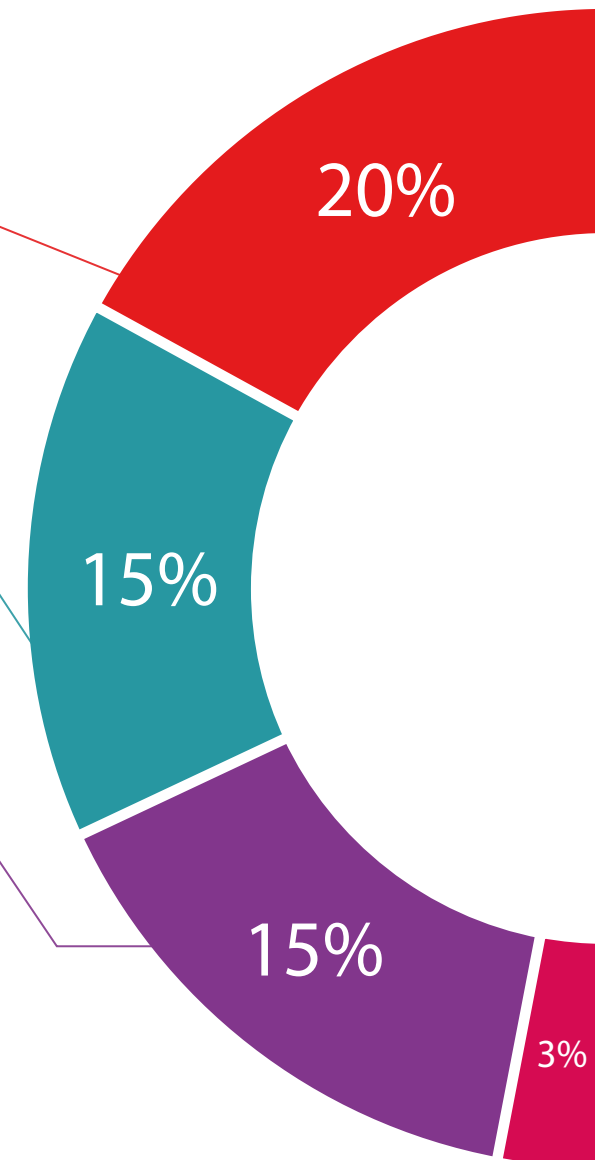
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

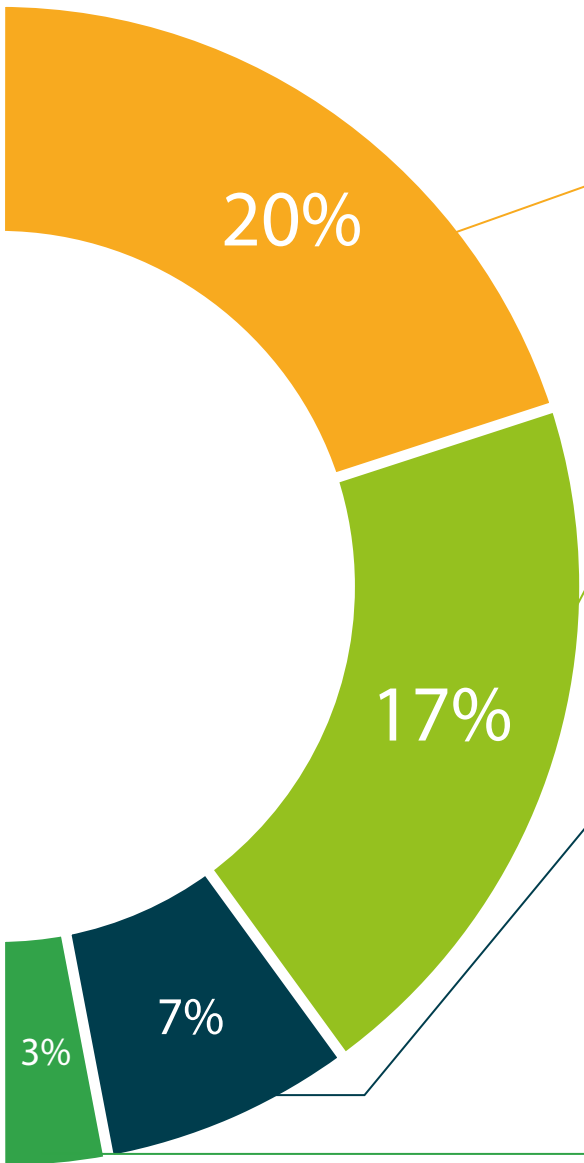
This unique multimedia content presentation training system was awarded by Microsoft as a "European Success Story".



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 HBOT in Physical and Neurological Rehabilitation 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 university qualification without having to travel or fill out laborious paperwork”

This Postgraduate Certificate in HBOT in Physical and Neurological Rehabilitation 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 career evaluation committees.

Title: Postgraduate Certificate in HBOT in Physical and Neurological Rehabilitation

Official N° of hours: 150 h.

Endorsed by the NBA



*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 training
development languages
virtual classroom

tech technological
university

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