

Postgraduate Certificate HBOT in Pain, Rheumatic Pathology and Medical Clinic

Endorsed by the NBA





Postgraduate Certificate HBOT in Pain, Rheumatic Pathology and Medical Clinic

- » Modality: online
- » Duration: 6 weeks
- » Certificate: TECH Global University
- » Credits: 6 ECTS
- » Schedule: at your own pace
- » Exams: online

Website: www.techtute.com/us/sports-science/postgraduate-certificate/hbot-pain-rheumatic-pathology-medical-clinic

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01

Introduction

In Sports Medicine, one of the greatest challenges is the treatment of pain and rheumatic pathology. In this sense, Hyperbaric Therapy opens for the professional in this field, a path full of healing possibilities. Therefore, learning all the aspects and characteristics of this type of intervention offers new and interesting possibilities for both the professional and the athlete. This program will allow the student to learn everything necessary to act with solvency and certainty in this type of work and will make him/her a much more competent and prepared professional to intervene successfully in this sector.





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This training opportunity will allow you to learn in depth the benefits of Hyperbaric Oxygen Therapy in the treatment of rheumatic pathology and pain”

There is currently a resurgence in the use of hyperbaric oxygenation treatment (HBOT) as an adjuvant tool in different, from the Sports Sciences specialties. The creation of new 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 Pain, Rheumatic Pathology and Medical Clinic explains, through experimental evidence, the effect of hyperbaric oxygen in neuropathic pain. Therefore, the basis for the potential applications of HBOT in pathologies and situations involving this type of pain is known.

The evidence of HBOT with low pressures in altitude sickness is also developed in this program by, in order to incorporate this treatment in the therapeutic approach to altitude sickness.

The basis and evidence of HBOT on anti-inflammatory effect, ischemia reperfusion injury and antioxidant effect are presented. In addition, evidence is shown in inflammatory bowel disease, tinnitus tinnitus and in different inflammatory-based pathologies. All this with the aim of providing Sports Science professionals with the necessary competences to successfully use hyperbaric therapy.

On the other hand, the contribution of the physiological effects of HBOT in preventive medicine is analyzed according to the emerging evidence in different metabolic diseases. In this way, future applications in different specialties and inflammatory and metabolic diseases of great impact on health could be considered in this Postgraduate Certificate.

This **Postgraduate Certificate in HBOT in Pain, Rheumatic Pathology and Medical Clinic** contains the most complete and up-to-date scientific program on the market.

Its most notable features are:

- ♦ 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



Take the step and join the select group of students of TECH Global University. Undoubtedly, the best choose us”

“

Get trained today with this Postgraduate Certificate and start applying your knowledge about Hyperbaric Oxygenation Therapies in the daily practice of your profession”

It includes, in its teaching staff professionals belonging to the field of Hyperbaric Medicine, who bring to this program the experience of their work, as well as recognized specialists of reference 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 purpose, the professional will be assisted by an innovative interactive video system developed by renowned and experienced experts, in TOHB in Pain, Rheumatic Pathology and Medical Clinic.

The best teaching team and the best content will accompany you throughout the training.

As this is a 100% online program, the gateway to knowledge will be only an electronic device with an internet connection.



02 Objectives

TECH Global University has designed this very complete program in HBOT in Pain, Rheumatic Pathology and Medical Clinic in Physical Activity and Sports with the objective of training the professional in everything related to the use of Hyperbaric Medicine to heal rheumatic pathologies and improve the quality of life of athletes and/or sportsmen. Therefore, knowing in depth its application and methodology, the sports professional will be able to apply this type of treatment in their daily practice, considerably improving their skills and abilities in this area.



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*TECH Global University's objective?
Your professional growth”*



General Objectives

- ♦ Disseminate the usefulness of hyperbaric oxygenation treatment in different specialties, especially in Sports Sciences
- ♦ Enable health professionals on the foundations, 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
- ♦ 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

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



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

03

Course Management

This Postgraduate Certificate has been designed by a teaching staff made up of multidisciplinary profiles and experts in the field of Hyperbaric Medicine who bring to this training their years of experience with the aim that students learn to use Hyperbaric Therapy as a means to provide solutions to rheumatic problems and chronic pain that have their origin in sport and physical activity. All this will enable the student to acquire the ideal transversal knowledge to be able to apply this type of treatment to various cases that may occur in daily professional practice.



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We have an excellent team of specialists in the field of Hyperbaric Medicine that will help you prepare depth understanding of 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 Gurneee 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.



Dra. Peter Lindholm

- 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

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

Address



Dr. Cannellotto, Mariana

- ♦ Specialist in Hyperbaric Medicine
- ♦ Medical Director from BioBarica - Hyperbaric Systems
- ♦ Clinical Physician at C.E.S.SRL
- ♦ President of Argentina Association of Hyperbaric Medicine and Research
- ♦ President of Ihmera



Ms. Jordá Vargas, Liliana

- ♦ Clinical Biochemistry and Microbiology Expert
- ♦ Scientific Director from BioBarica - Hyperbaric Systems
- ♦ Microbiologist at CRAI Norte
- ♦ Bacteriologist at Vélez Sarsfield Hospital
- ♦ Scientific Director of AAMHEI and AEMHEI
- ♦ Degree in Biochemistry from the National University of Córdoba
- ♦ Biochemistry and Clinical Microbiology, University Institute CEMIC



High School

Dr. Ramallo, Rubén Leonardo

- ◆ Attending Physician Specialist in Medical Clinic at the General Hospital of Acute Diseases.
- ◆ Physician at BioBarica – Hyperbaric Systems
- ◆ Medical Surgeon School of Medical Sciences, National University of Córdoba, Argentina
- ◆ Specialist in Internal Medicine, Residency in Internal Medicine, Córdoba Hospital
- ◆ Master in Psychoimmunoneuroendocrinology, Universidad Favaloro,
- ◆ Director of the AAMHEI Medical Clinic Commission

Dr. Verdini, Fabrizio

- ◆ Physician at BioBarica Hyperbaric Systems
- ◆ Director of Health Programs at Camp La Llanada
- ◆ General Practitioner at Doctor Armando Mata Sanchez Hospital
- ◆ Doctor of Medicine from the University of Carabobo
- ◆ Master's Degree in Hyperbaric Medicine from the CEU Cardenal Herrera University.
- ◆ Master's Degree of Business Administration healthcare, Polytechnic University of Puerto Rico

Dr. Emilia Fraga, Pilar María

- ◆ Director of the Scientific and Clinical Research Division at Biobarica
- ◆ Food evaluator at the National Food Institute
- ◆ Professor of Anatomy and Physiology at ADEF
- ◆ Degree in Biochemistry from Arturo Jauretche National University

04

Structure and Content

All the programs that TECH Global University designs have been created based on the highest scientific rigor and the latest developments in the field. In this way, the structure and content of the program will become the student's main asset when it comes to training in everything related to the use of Hyperbaric Medicine to treat rheumatological problems and chronic pain. All this will allow the professional to position himself as an expert in the field, and grow within a profession that increasingly demands more professionals knowledgeable in this therapeutic area.



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These contents will provide you with a deep and results-oriented learning that will allow you to enter a labor market that is increasingly demanding professionals in Sports Sciences who are experts in the field”

Module 1. HBOT in Pain, Rheumatic Diseases and the Medical Clinic

- 1.1. HBOT in Altitude Sickness
- 1.2. Mechanisms of Action in Analgesia Neuropathic Pain and Hyperbaric Oxygen
- 1.3. Arthropathies and Collagenopathies
- 1.4. HBOT in Dysfunctional Neurosensitive Syndromes
- 1.5. Fibromyalgia and Hyperbaric Oxygen
- 1.6. HBOT in Ischemia Reperfusion Injury
- 1.7. Tinnitus and Sudden Onset Deafness
- 1.8. Inflammatory Bowel Diseases and Hyperbaric Oxygen
- 1.9. HBOT in Fertility
- 1.10. Hyperbaric Oxygen in the Metabolism of Diabetes and Severe Anemia





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Welcome, you have the training opportunity you have been waiting for to take your career to the next level”

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"

Case Study to contextualize all content

Our program offers a revolutionary approach to developing skills and knowledge. Our goal is to strengthen skills in a changing, competitive, and highly demanding environment.

“

At TECH, you will experience a learning methodology that is shaking the foundations of traditional universities around the world"



You will have access to a learning system based on repetition, with natural and progressive teaching throughout the entire syllabus.



The student will learn to solve complex situations in real business environments through collaborative activities and real cases.

A learning method that is different and innovative

This TECH program is an intensive educational program, created from scratch, which presents the most demanding challenges and decisions in this field, both nationally and internationally. This methodology promotes personal and professional growth, representing a significant step towards success. The case method, a technique that lays the foundation for this content, ensures that the most current economic, social and professional reality is taken into account.

“*Our program prepares you to face new challenges in uncertain environments and achieve success in your career”*

The case method is the most widely used learning system in the best faculties in the world. The case method was developed in 1912 so that law students would not only learn the law based on theoretical content. It consisted of presenting students with real-life, complex situations for them to make informed decisions and value judgments on how to resolve them. In 1924, Harvard adopted it as a standard teaching method.

What should a professional do in a given situation? This is the question we face in the case method, an action-oriented learning method. Throughout the program, the studies will be presented with multiple real cases. They will have to combine all their knowledge and research, and argue and defend their ideas and decisions.

Relearning Methodology

TECH effectively combines the Case Study methodology with a 100% online learning system based on repetition, which combines 8 different teaching elements in each lesson.

We enhance the Case Study with the best 100% online teaching method: Relearning.

In 2019, we obtained the best learning results of all online universities in the world.

At TECH, you will learn using a cutting-edge methodology designed to train the executives of the future. This method, at the forefront of international teaching, is called Relearning.

Our university is the only one in the world authorized to employ this successful method. In 2019, we managed to improve our students' overall satisfaction levels (teaching quality, quality of materials, course structure, objectives...) based on the best online university indicators.



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.

With this methodology, we have trained more than 650,000 university graduates with unprecedented success in fields as diverse as biochemistry, genetics, surgery, international law, management skills, sports science, philosophy, law, engineering, journalism, history, markets, and financial instruments. 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 training, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation for success.

From the latest scientific evidence in the field of neuroscience, not only do we know how to organize information, ideas, images and memories, but we know that the place and context where we have learned something is fundamental for us to be able to remember it and store it in the hippocampus, to retain it in our long-term memory.

In this way, and in what is called neurocognitive context-dependent e-learning, the different elements in our program are connected to the context where the individual carries out their professional activity.



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.



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.



Practising Skills and Abilities

They will carry out activities to develop specific competencies and skills in each thematic area. Exercises and activities to acquire and develop the skills and abilities that a specialist needs to develop in the context of the globalization that we are experiencing.



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.





Case Studies

Students will complete a selection of the best case studies chosen specifically for this situation. Cases that are presented, analyzed, and supervised by the best specialists in the world.



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 educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



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.



06

Certificate

The Postgraduate Certificate in HBOT in Pain, Rheumatic Pathology and Medical Clinic guarantees students, in addition to the most rigorous and up-to-date education, access to a certificate issued by La TECH Global University.



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

This program will allow you to obtain your **Postgraduate Certificate in HBOT in Pain, Rheumatic Pathology and Medical Clinic** endorsed by **TECH Global University**, the world's largest online university.

TECH Global University is an official European University publicly recognized by the Government of Andorra ([official bulletin](#)). Andorra is part of the European Higher Education Area (EHEA) since 2003. The EHEA is an initiative promoted by the European Union that aims to organize the international training framework and harmonize the higher education systems of the member countries of this space. The project promotes common values, the implementation of collaborative tools and strengthening its quality assurance mechanisms to enhance collaboration and mobility among students, researchers and academics.

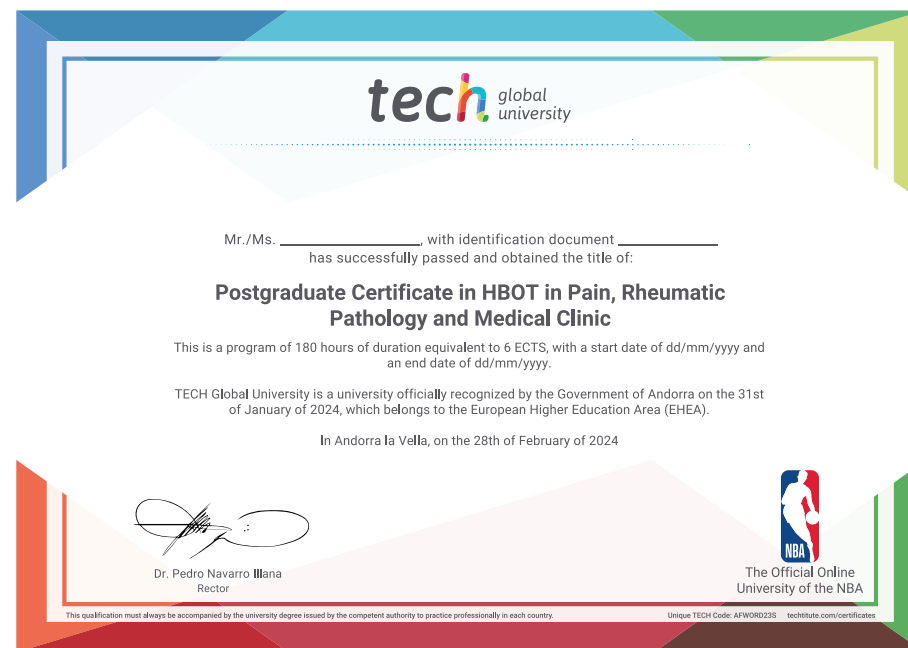
This **TECH Global University** title is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: **Postgraduate Certificate in HBOT in Pain, Rheumatic Pathology and Medical Clinic**

Modality: **online**

Duration: **6 weeks**

Accreditation: **6 ECTS**





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