Postgraduate Diploma

HBOT in Healing, Pain and Physical and Neurological Rehabilitation

Endorsed by the NBA

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Postgraduate Diploma
HBOT in Healing, Pain and Physical and Neurological Rehabilitation

- Modality: **online**
- Duration: **6 months**
- Certificate: **TECH Global University**
- Credits: **18 ECTS**
- Schedule: **at your own pace**
- Exams: **online**

Website: www.techtitute.com/us/sports-science/postgraduate-diploma/postgraduate-diploma-hbot-healing-pain-physical-neurological-rehabilitation

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Introduction

The efficacy of Hyperbaric Medicine as an accelerator of healing and its effect on pain is now a reality that offers new ways of working with superior results to therapeutic intervention in Sports Science. However, its correct application requires a broad and complete mastery of the subject in order to achieve excellent effects. In this sense, this complete program will allow the student to know and apply the advantages of HBOT in healing and pain treatment in an optimal and efficient way. All of this, with the objective of catapulting the students' careers and turning them into prestigious professionals.

Pain, healing and physical problems find in Hyperbaric Therapy an invaluable means of healing. Learn how to work with it through this complete Postgraduate Diploma"

HBOT plays a major role in contributing to the healing process at different stages of healing. Therefore, this program describes the evidence 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. This will allow the Sports Science professional to go deeper into this subject and learn about the uses of HBOT in this regard.

In addition, Hyperbaric Therapy and its use for healing scars, pain and neurological problems has been increasing. This is because increased oxygen in wounds has broad healing benefits in chronic recalcitrant ulcers.

This process, which consists of administering pure oxygen at a higher pressure than atmospheric pressure in order to increase the partial pressure of oxygen (pO2) in the tissues, is a very useful tool for athletes because it allows them to regenerate wounds and improve their future performance.

Thus, during the training course, the experience in these wounds with medium pressure chambers and the experimental evidence of the physiological effects triggered at these pressures will be presented, which could support the fact of the good evolution experienced with HBOT in the treatment of wounds, with lower pressures than those described in the literature.

In addition, the use of Hyperbaric Medicine as a means of analgesia will also be studied. Therefore, evidence will be presented on different neurosensitive syndromes, pathologies with chronic pain and fibromyalgia in which HBOT is highly useful. In this sense, the Sports Science professional will learn how to channel cases with this type of pathology so that they can benefit from hyperbaric oxygenation as a means of healing.

In the same way, the effect of hyperbaric oxygen on neuropathic pain will be explained through experimental evidence. On the other hand, the basis and evidence of HBOT on anti-inflammatory effect, ischemia reperfusion injury and antioxidant effect are shown.

Therefore, the Postgraduate Diploma in HBOT in Healing, Pain and Physical and Neurological Rehabilitation will allow the professional to deepen in the use of these mechanisms. The program develops a solid and up to date training in Hyperbaric Oxygen Therapy, which will allow the expert in Sports Sciences to develop competencies and skills necessary to identify and adequately solve different cases of pathologies or therapeutic practices for which hyperbaric oxygenation can be effective and efficient.

This **Postgraduate Diploma in HBOT in Healing, Pain, and Physical and Neurological Rehabilitation** contains the most complete and up to date educational program on the market. The most outstanding features of this program 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
- Access to content from any fixed or portable device with an Internet connection

Start increasing your skills as a sports professional with a therapy of recognized prestige at a multidisciplinary level"

Athletes have found HBOT to be a powerful means of healing. Discover how to put it into practice through this complete Postgraduate Diploma"

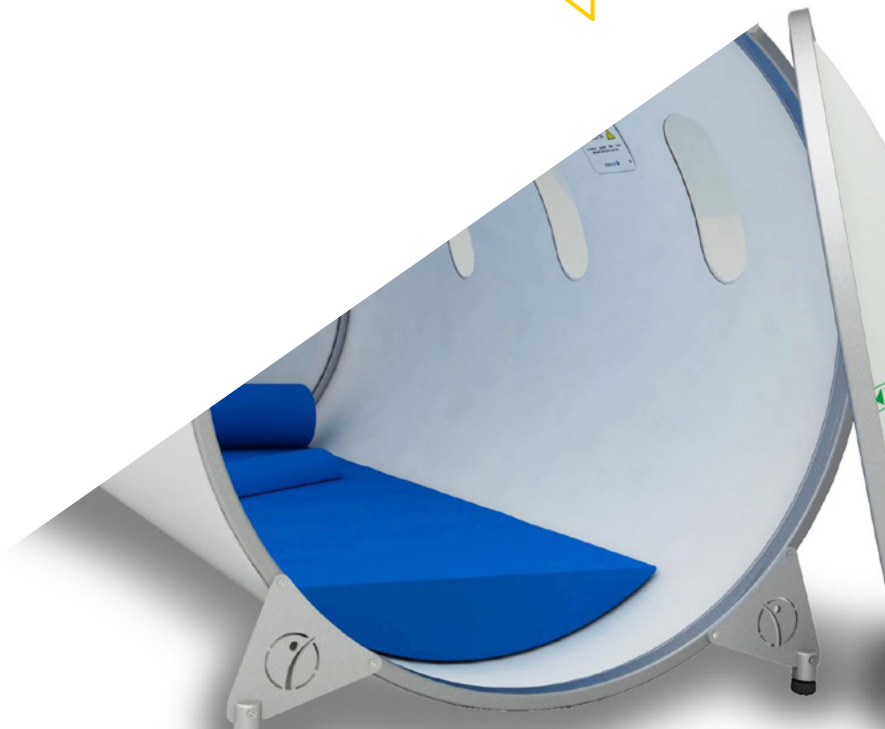
As it is a multimedia training, you will be able to learn through the most innovative and effective tools.

100% online training, with the best content in the industry and the most qualified teaching staff, etc. Could you imagine anything better?

The program includes, in its teaching team, professionals belonging to the field of Hyperbaric Medicine and sport, who pour into this specialization the experience of their work, in addition to recognized specialists from reference 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 training programmed to train in real situations.

This program is designed around Problem Based Learning, whereby the specialist must try to solve the different professional practice situations that arise during the academic year. For this purpose, the professional will be assisted by an innovative interactive video system created by renowned and experienced experts in HBOT in Healing, Pain and Physical and Neurological Rehabilitation.



02

Objectives

TECH designs all of its training with the objective of setting students on the path to success in their profession. Therefore, the Postgraduate Certificate in HBOT in Healing, Pain and Physical and Neurological Rehabilitation will seek to provide professionals with the latest knowledge on the fundamentals and applications of Hyperbaric Oxygenation treatment, especially for those cases where there is pain, scarring or physical and neurological problems. Thus, 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.

Don't miss this great opportunity and learn how to apply the benefits of HBOT to approach physical and neurological problems, wound healing and pain treatment"

General Objectives

- Disseminate the usefulness of Hyperbaric Oxygenation treatment in scars and physical problems
- Train sports professionals in the fundamentals, mechanism 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 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

Specific Objectives

Module 1 HBOT in Wound Healing Process and Infectious Pathology

- Present the scientific evidence of HBOT on different types of complex wounds and burns
- Training in the role of HBOT in wound healing process
- Up to date information on the evidence of the physiological therapeutic effects of HBOT on wound healing and medium pressure
- Demonstrate the experience in these applications with a presentation of clinical cases
- Be aware of the implications of all this in the patient's experience, as well as the repercussions of the disease at the psychological and social level

Module 2 HBOT in Pain, Rheumatic Diseases and the Medical Clinic

- 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

Module 3 HBOT in Physical and Neurological Rehabilitation

- Present the scientific evidence onthe neurological indications of HBOT
- Describe the effect of HBOT on physical rehabilitation
- Training on 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 Parkinsons and Alzheimers
- Present the experience of clinical cases treated with HBOT

03

Course Management

This specialization has a first class teaching staff that will focus on providing Sports Science professionals with the necessary skills and abilities to use Hyperbaric Oxygenation treatment to help heal scarring processes, pain and physical and neurological problems, especially in those cases in which these problems have been caused by physical activity. This professional team, aware of the current relevance and importance of specialization in this field, has designed a complete compendium of contents specially designed to lead professionals to success in their daily practice.

The best faculty is at one of the most prestigious private online universities in the world. Don't miss the opportunity to learn from the best"

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.

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
- AAMHE Pedagogical Assistant

04

Structure and Content

Under the latest scientific evidence, and taking into account the most recent medical trials and publications in this regard, a team of high level and prestigious professionals have designed this complete content bank with the aim of providing optimal training in the use of Hyperbaric Oxygenation for professionals in the Sports Sciences. In this way, the contents that TECH puts in the hands of the students will become a high level theoretical guide when incorporating HBOT in their daily practice.

High level content is crucial when it comes to putting into practice what has been learned and internalizing what has been studied"

Module 1. HBOT in 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 the Medical Clinic

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 Fertilityv
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. Brain Paralysis and HBOT
3.6. Autism
3.7. Ischemic Encephalopathies
3.8. HBOT in Parkinson's
3.9. HBOT in Alzheimer's
3.10. HBOT in Trauma (Avascular Necrosis, Bone Edema, Fractures and Osteomyelitis)

"This is the educational opportunity your career has been waiting for. Don't let it slip away"

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"

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

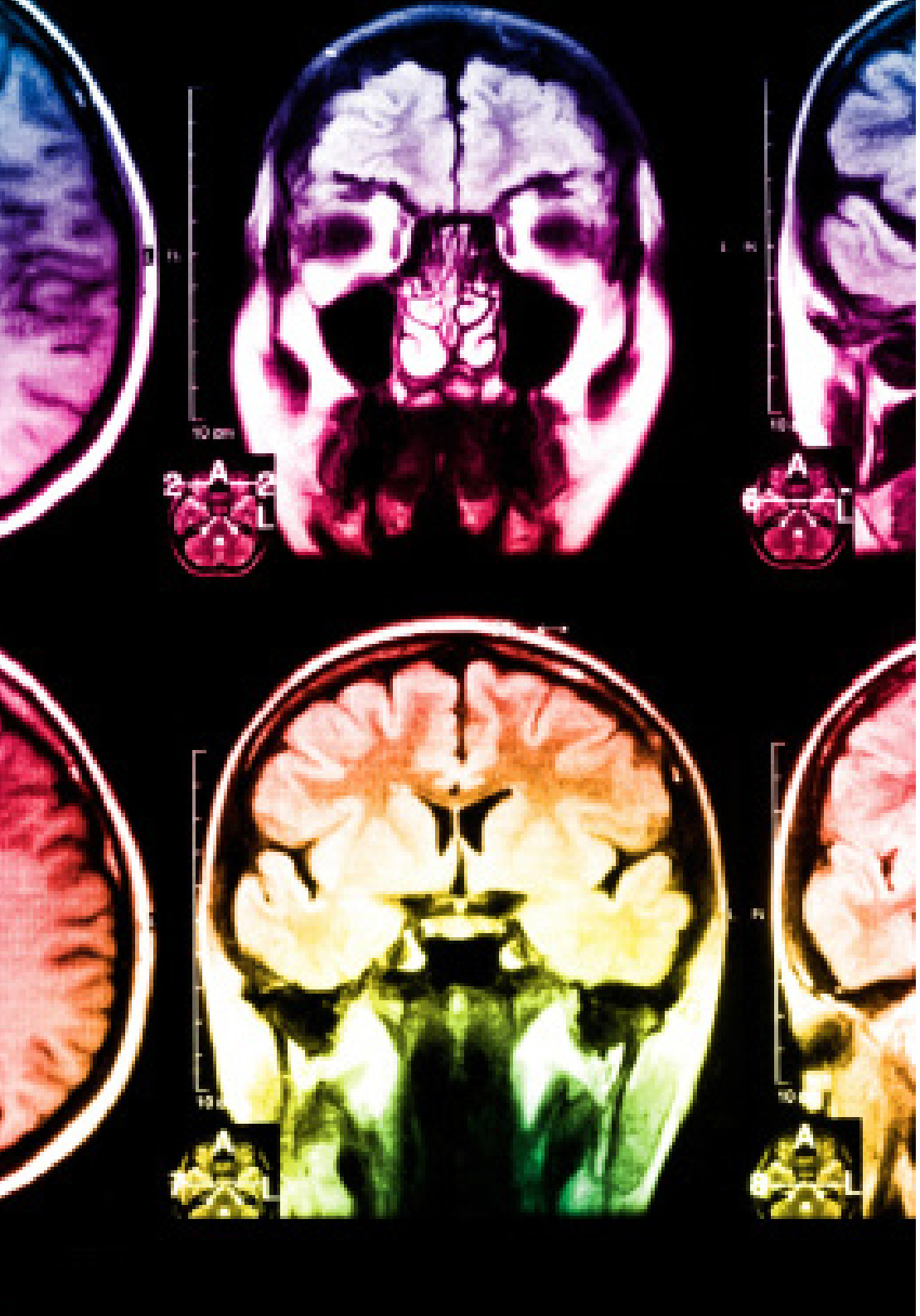
TECH effectively combines the Case Study methodology with a 100% online learning system based on repetition, which combines 8 different teaching elements in each lesson.

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.

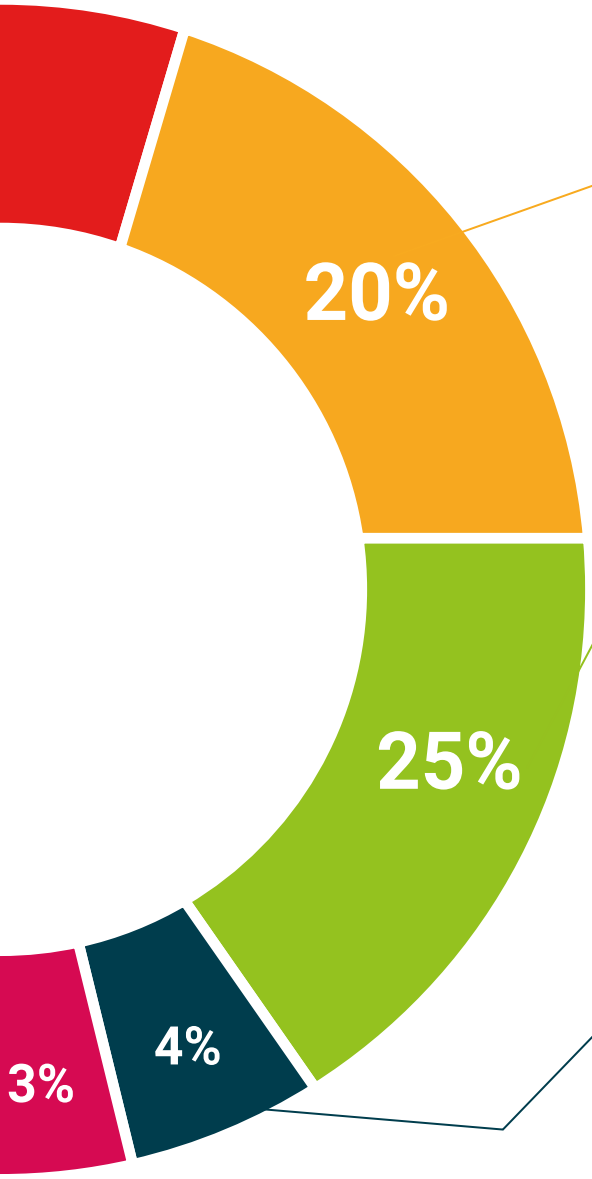
Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.

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 Diploma in HBOT in Healing, Pain and 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 Global University.

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 Diploma in Healing, Pain and Physical and Neurological Rehabilitation** 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 Diploma in HBOT in Healing, Pain and Physical and Neurological Rehabilitation**

Modality: **online**

Duration: **6 months**

Accreditation: **18 ECTS**


tech global university

Mr./Ms. _____, with identification document _____
has successfully passed and obtained the title of:

Postgraduate Diploma in Healing, Pain and Physical and Neurological Rehabilitation

This is a program of 450 hours of duration equivalent to 18 ECTS, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy.

TECH Global University is a university officially recognized by the Government of Andorra on the 31st of January of 2024, which belongs to the European Higher Education Area (EHEA).

In Andorra la Vella, on the 28th of February of 2024

Dr. Pedro Navarro Illana
Rector

The Official Online University of the NBA

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 diploma issued with an apostille, TECH Global University will make the necessary arrangements to obtain it, at an additional cost.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Postgraduate Diploma

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