

# Postgraduate Certificate HBOT in Dysbaric Pathology

Endorsed by the NBA





## Postgraduate Certificate HBOT in Dysbaric Pathology

- » 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-dysbaric-pathology](http://www.techtute.com/us/sports-science/postgraduate-certificate/hbot-dysbaric-pathology)

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# 01

# Introduction

Dysbaric pathology, although it may seem an infrequent condition, affects a large number of people each year, which has prompted the highest quality healthcare units to incorporate this area of work. Knowing how to intervene in this type of situation through HBOT is a high-level differentiating capability.





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*Dysbaric accidents occurring in professional or sporting events require specific knowledge of the use of HBOT”*

There is currently a resurgence in the use of hyperbaric oxygenation treatment as an adjuvant tool in different medical 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 Dysbaric Pathology gives the keys to the application of HBOT in Dysbaric Pathologies, as well as showing its relationship with Diving Medicine and Underwater Medicine.

The elaboration of this content allows to know the limitations of some treatments and the precise indication in pathologies related to iatrogenic diving accidents or embolism. Likewise, knowledge of the different types of hyperbaric chambers allows the incorporation of the concept of occupational safety in the workers of the specialty.

On the other hand, concepts of technological and therapeutic safety of the different hyperbaric chambers are presented, as well as the regulations and requirements necessary for their installation.

With a focus on market management and national and international regulations, this course allows the incorporation and study of the hyperbaric chamber concept as a biomedical device.

This program is also intended to be useful for the professional who is considering incorporating a hyperbaric medicine unit and perform a direct exercise of its application, and not only indicate HBOT or incorporate it into their conventional therapeutic practice.

This **Postgraduate Certificate in HBOT in Dysbaric Pathology** contains the most complete and up-to-date educational 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
- ♦ 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



*Don't miss the opportunity to study at one of the largest private online universities in the world. Take the step and join our team"*

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*This course 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 Dysbaric Pathology, you will obtain a certificate endorsed by TECH Global University”*

It includes in its teaching staff professionals belonging to the field of Hyperbaric Medicine, who pour into this training the experience of their work, in addition to recognized specialists from 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 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 developed by renowned experts with great experience in HBOT in Dysbaric Pathology.

*This training comes with the best didactic material, providing you with a contextual approach that will facilitate your learning.*

*This 100% online course will allow you to combine your studies with your professional work while increasing your knowledge in this field.*



# 02 Objectives

The Postgraduate Certificate in HBOT in Dysbaric Pathology is oriented to train in the fundamentals and applications of hyperbaric oxygenation treatment and to expose the scientific evidence in the different specialties in the health field.







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*Learn how to intervene effectively in cases of dysbaric pathology with the knowledge of the techniques and protocols essential in this field"*



## General Objectives

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- Promote the usefulness of hyperbaric oxygenation treatment in different medical specialties
- Train 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

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- ◆ Present the scientific evidence on decompression sickness in divers
- ◆ Introduce the concept of dysbaric pathologies and Underwater Medicine
- ◆ Discuss the need for the volumetric effect of HBOT and the use of high-pressure chambers
- ◆ Describe the evidence of the effect of HBOT in iatrogenic embolism
- ◆ Introduce the concepts of work safety with high pressure chambers
- ◆ Present the requirements and regulations for the installation of the different hyperbaric chambers

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

# 03

# Course Management

The program includes in its teaching staff reference experts in Hyperbaric Medicine, who pour into this training the experience of their work. 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 train 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.



## Dra. Peter Lindholm

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- ♦ 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”*

## Management



### Dr. Cannellotto, Mariana

- ♦ President of AAMHEI Biobarica Medical Director
- ♦ Specialist in Hyperbaric Medicine. Medical Clinic



### Dr. Jordá Vargas, Liliana

- ♦ Degree in Clinical Biochemistry
- ♦ Microbiology
- ♦ Scientific Director of AEMHEI and AAMHEI
- ♦ Biobarica Scientific and Clinical Research Director



## Professors

### Dr. Ramallo, Rubén Leonardo

- ♦ Medical Surgeon Faculty of Medical Sciences. National University of Córdoba. Argentina
- ♦ Specialist in Internal Medicine. Residency in Internal Medicine, Córdoba Hospital
- ♦ Master's Degree in Psychoimmunoneuroendocrinology. 2015-2016. Favaloro University
- ♦ Director of the AAMHEI Medical Clinic Commission

### Dr. Verdini, Fabrizio

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

# 04

# Structure and Content

The structure of the contents has been designed by the best professionals in the field of Hyperbaric Medicine, with an 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.





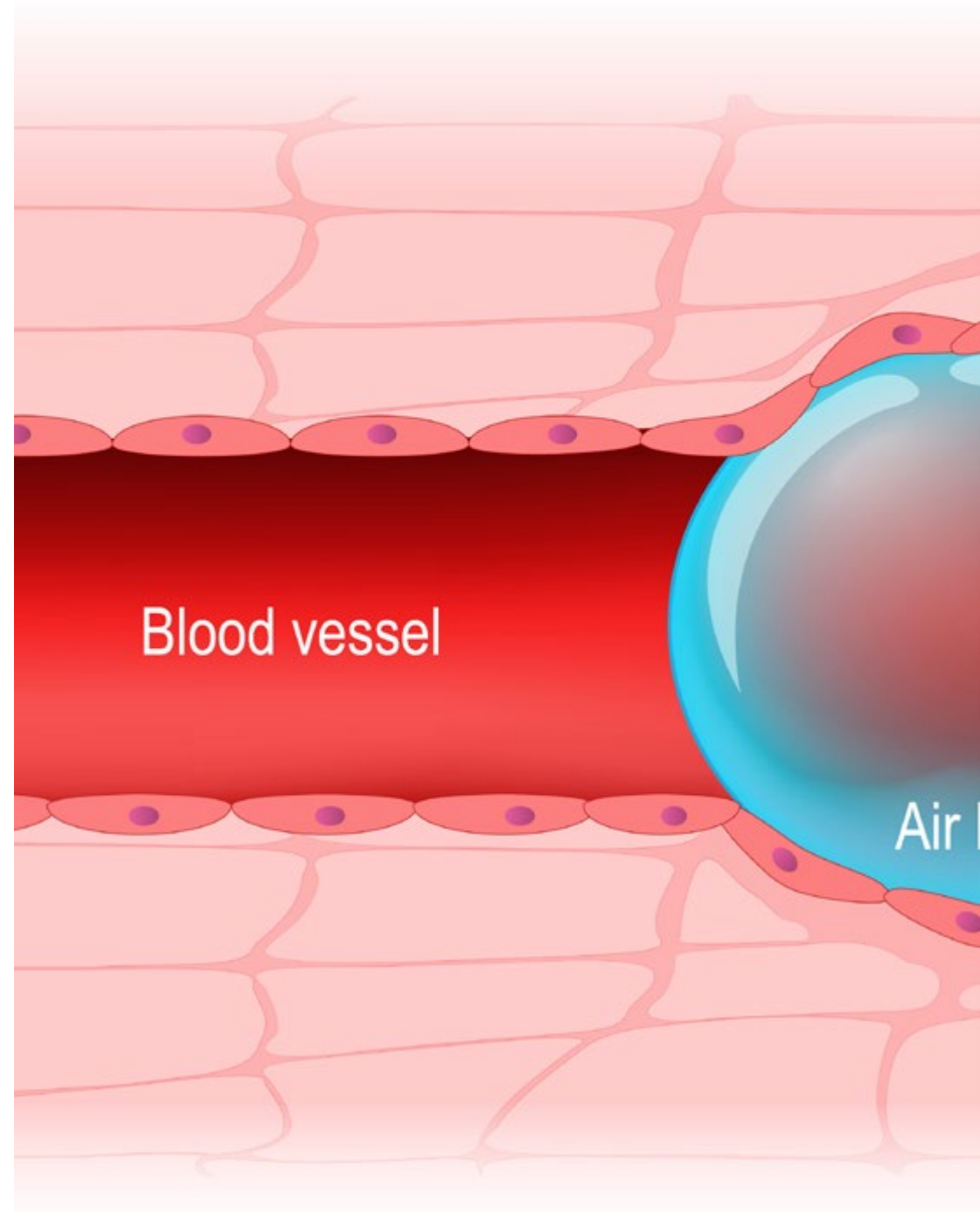


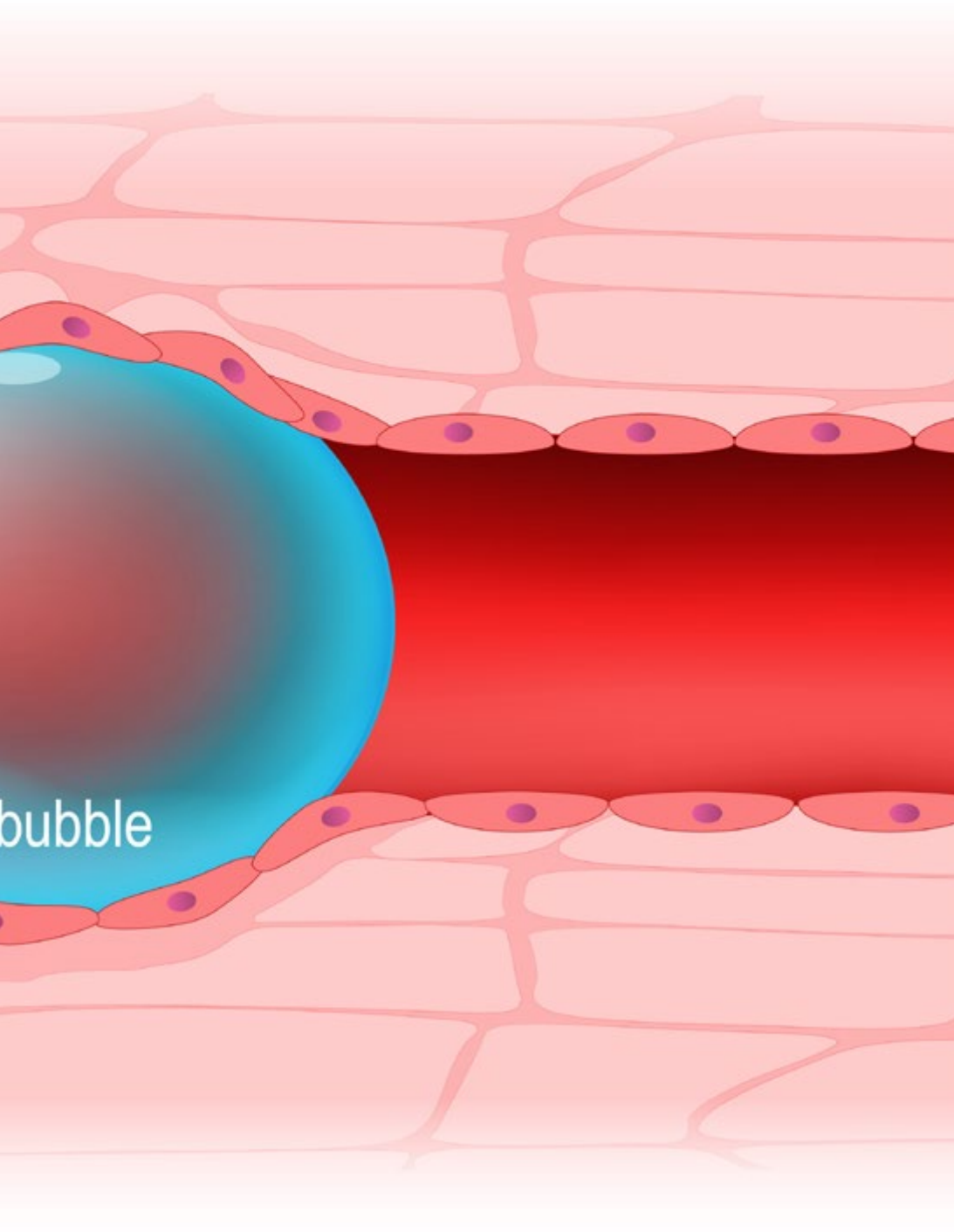
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*This Postgraduate Certificate in HBOT in Dysbaric Pathology contains the most complete and up-to-date scientific program on the market”*

## Module 1. HBOT in Dysbaric Pathology

- 1.1. Diving and Diving Medicine Physiological Reactions to Diving Conditions Deep Neurological Syndrome
- 1.2. Changes in Environmental Pressure Decompression Sickness Air Embolism Pathophysiology. Symptoms and Signs
- 1.3. Treatment of Decompression Sickness Prevention of Dysbaric Accidents Decompression Table
- 1.4. Dysbaric Pathology and Evidence-Based Medicine
- 1.5. Dysbaric Osteonecrosis
- 1.6. HBOT in Postoperative Gas Embolism Iatrogenic Embolism
- 1.7. Hyperbaric Medicine in the Workplace Work in Compressed Air Medical Documentation and Dive Logs. Health Risks
- 1.8. Work Accidents in Operating High Pressure Chambers Medical Support and Treatment for Compressed Air Jobs
- 1.9. Fire Evaluation and Prevention with Hyperbaric Chamber with Combustion Risk
- 1.10. Regulations and Requirements for the Installation of Different Types of Hyperbaric Chambers





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*This training will allow you to advance in your career in a comfortable way, compatible with any other occupation"*

# 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.

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*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 Dysbaric Pathology guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by 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 Dysbaric Pathology** 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 Dysbaric Pathology**

Modality: **online**

Duration: **6 weeks**

Accreditation: **6 ECTS**



\*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.

future  
health confidence people  
education information tutors  
guarantee accreditation teaching  
institutions technology learning  
community commitment  
personalized service innovation  
knowledge present  
development language  
virtual classroom



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- » Certificate: TECH Global University
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- » Exams: online



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